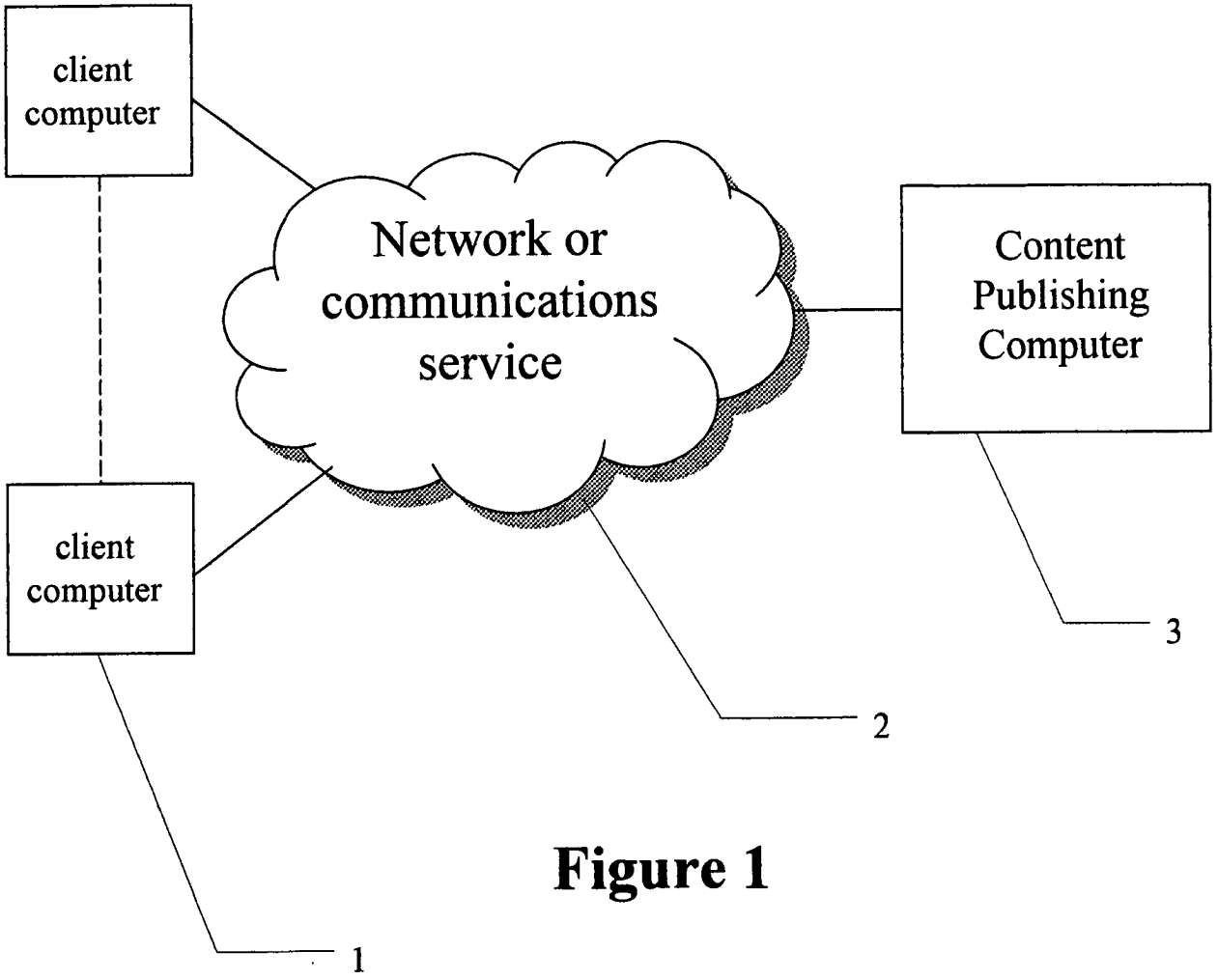

client computer
client computer
Network or communications service
Content Publishing Computer
1
2
3

Figure 1

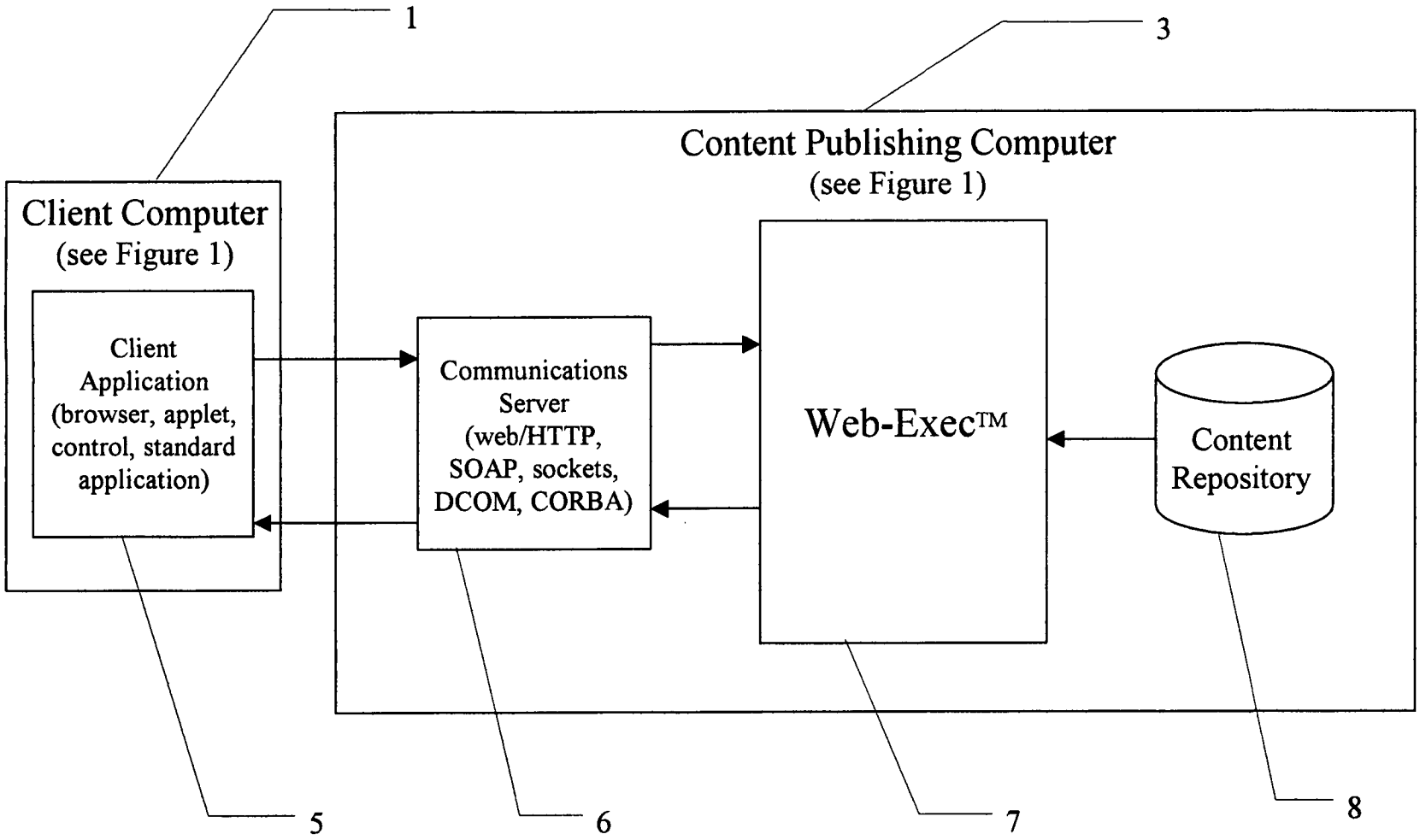

1
3
Content Publishing Computer
(see Figure 1)
Client Computer
(see Figure 1)
Client Application (browser, applet, control, standard application)
Communications Server (web/HTTP, SOAP, sockets, DCOM, CORBA)
Web-Exec™
Content Repository
5
6
7
8

Figure 2

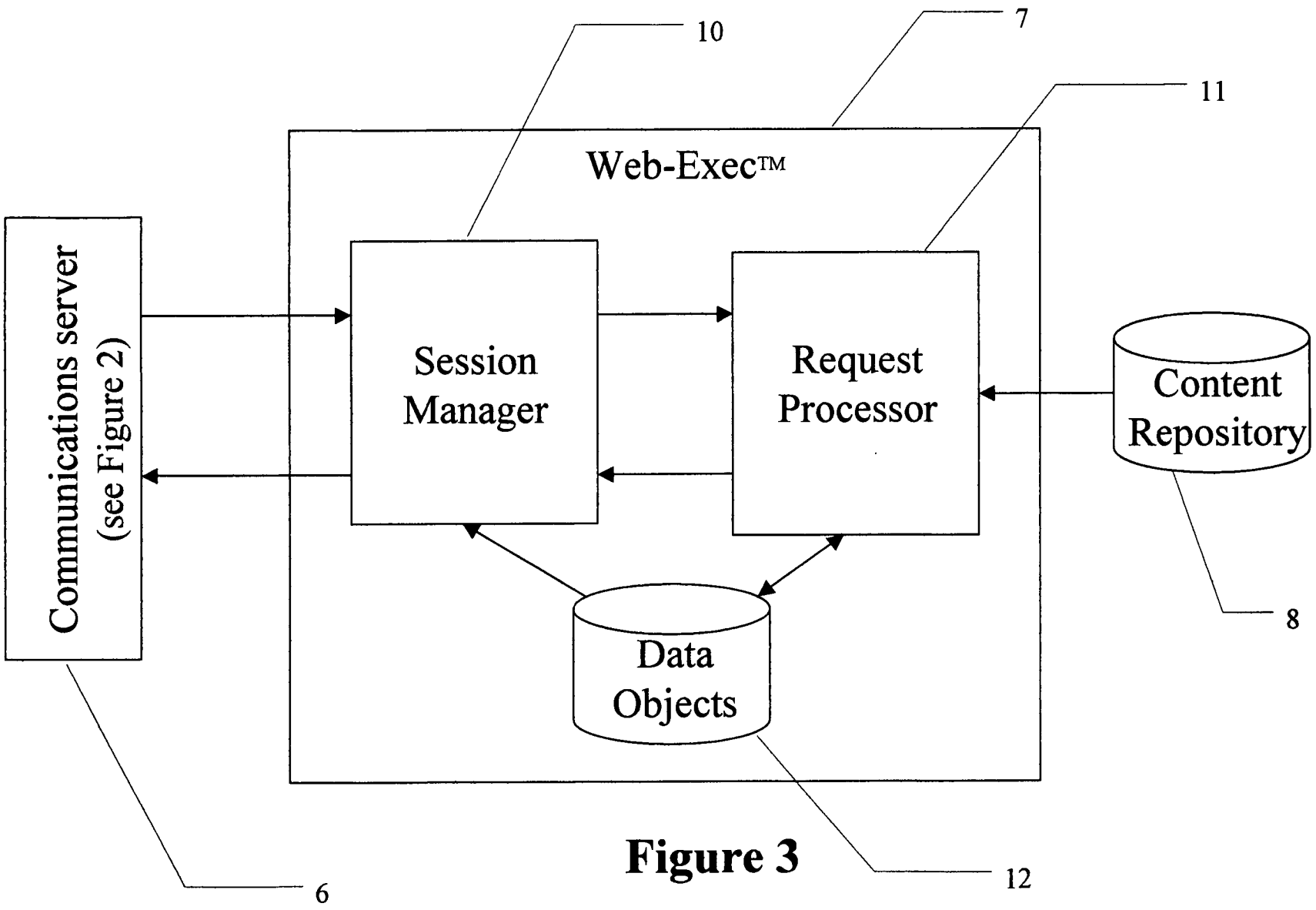

10
7
11
Web-Exec™
Communications server
(see Figure 2)
Session
Manager
Request
Processor
Content
Repository
Data
Objects
8
6
12

Figure 3

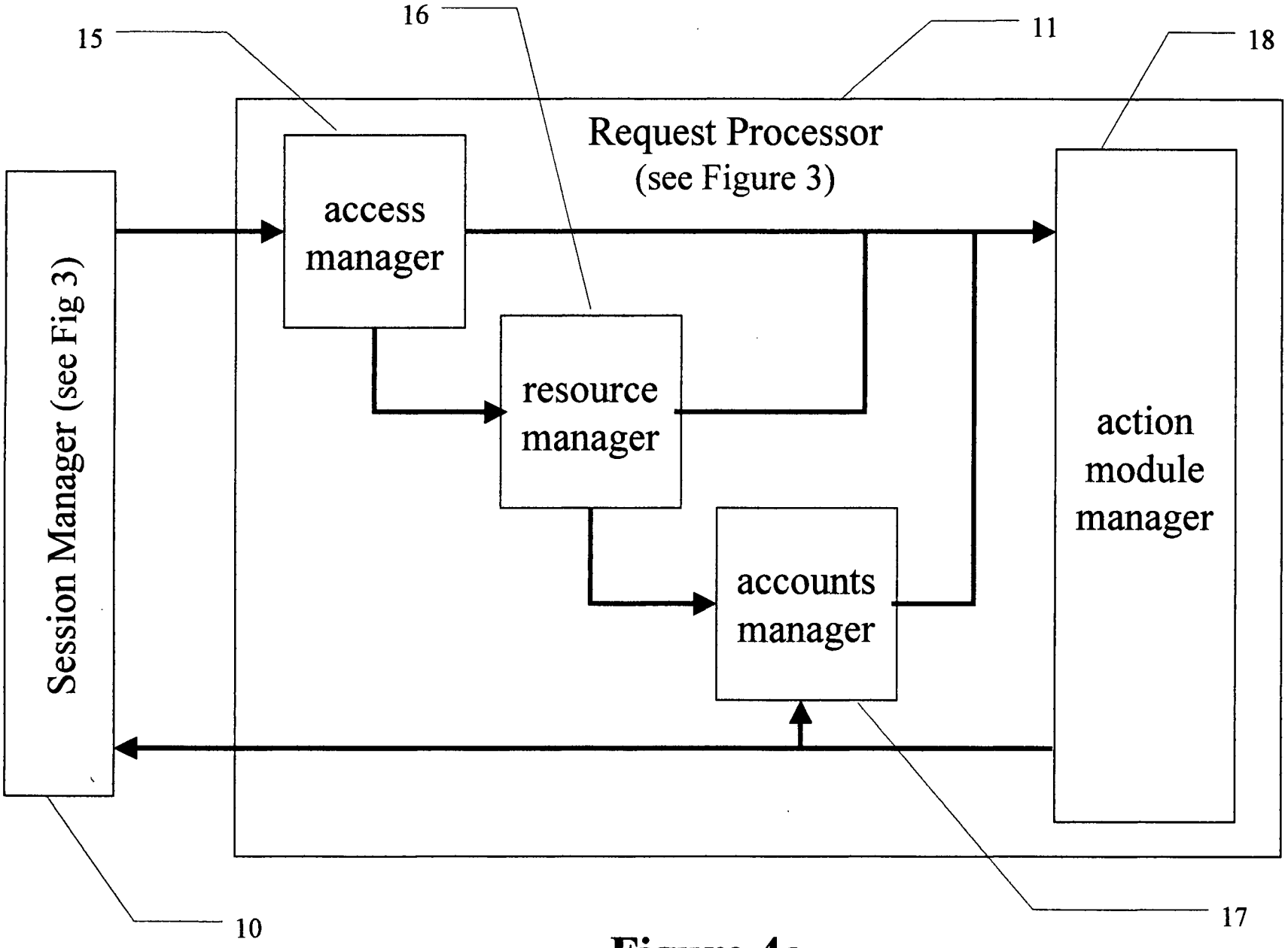

15
16
11
18
Request Processor
(see Figure 3)
access manager
resource manager
accounts manager
action module manager
Session Manager (see Fig 3)
10
17

Figure 4a

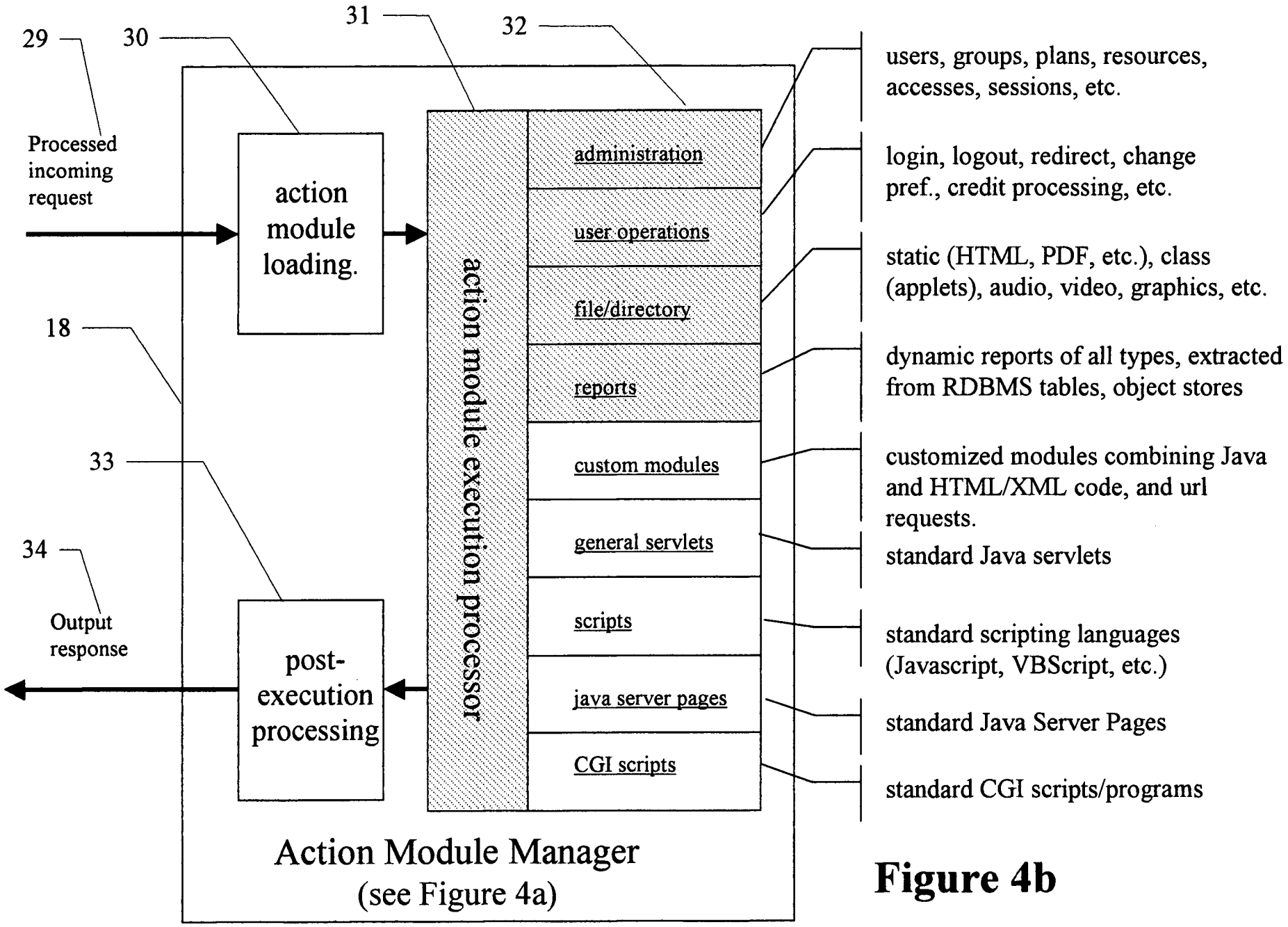

29
30
31
32
Processed incoming request
action module loading.
18
33
34
Output response
post-execution processing
action module execution processor
administration
user operations
file/directory
reports
custom modules
general servlets
scripts
java server pages
CGI scripts
Action Module Manager
(see Figure 4a)
users, groups, plans, resources, accesses, sessions, etc.
login, logout, redirect, change pref., credit processing, etc.
static (HTML, PDF, etc.), class (applets), audio, video, graphics, etc.
dynamic reports of all types, extracted from RDBMS tables, object stores
customized modules combining Java and HTML/XML code, and url requests.
standard Java servlets
standard scripting languages (Javascript, VBScript, etc.)
standard Java Server Pages
standard CGI scripts/programs

Figure 4b

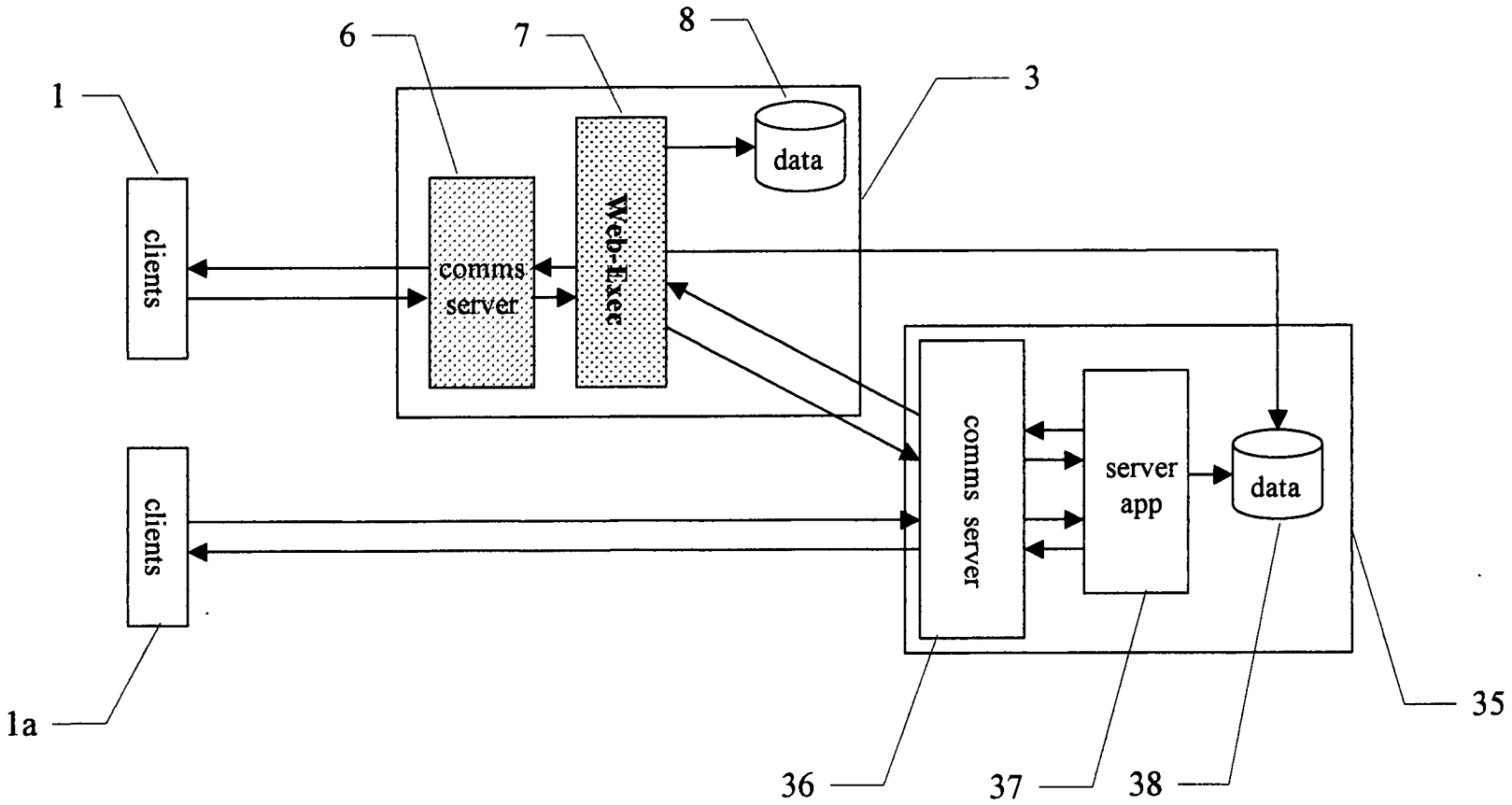

1
6
7
8
3
clients
comms server
Web-Exec
data
clients
comms server
server app
data
1a
35
36
37
38

Figure 4c

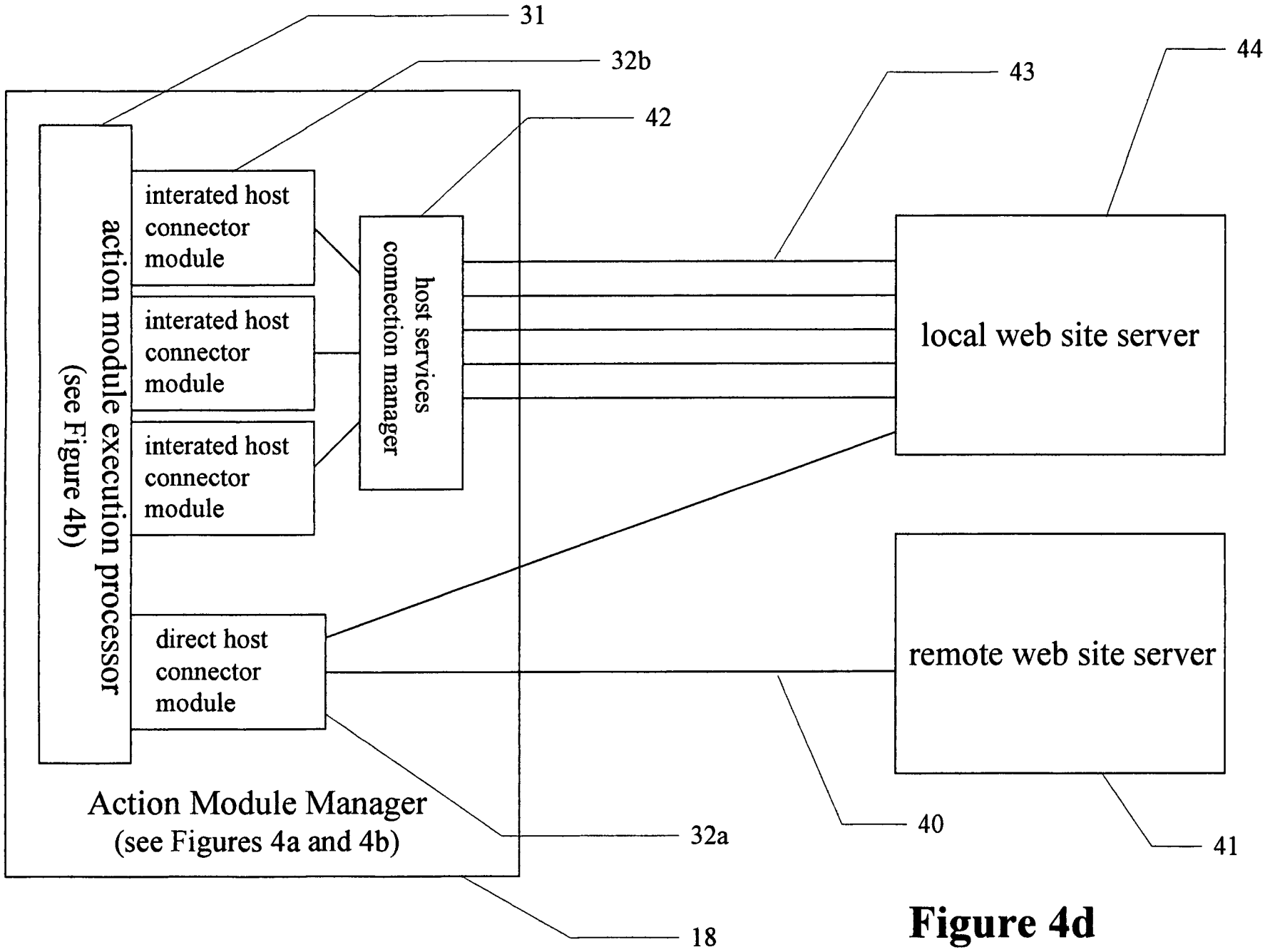
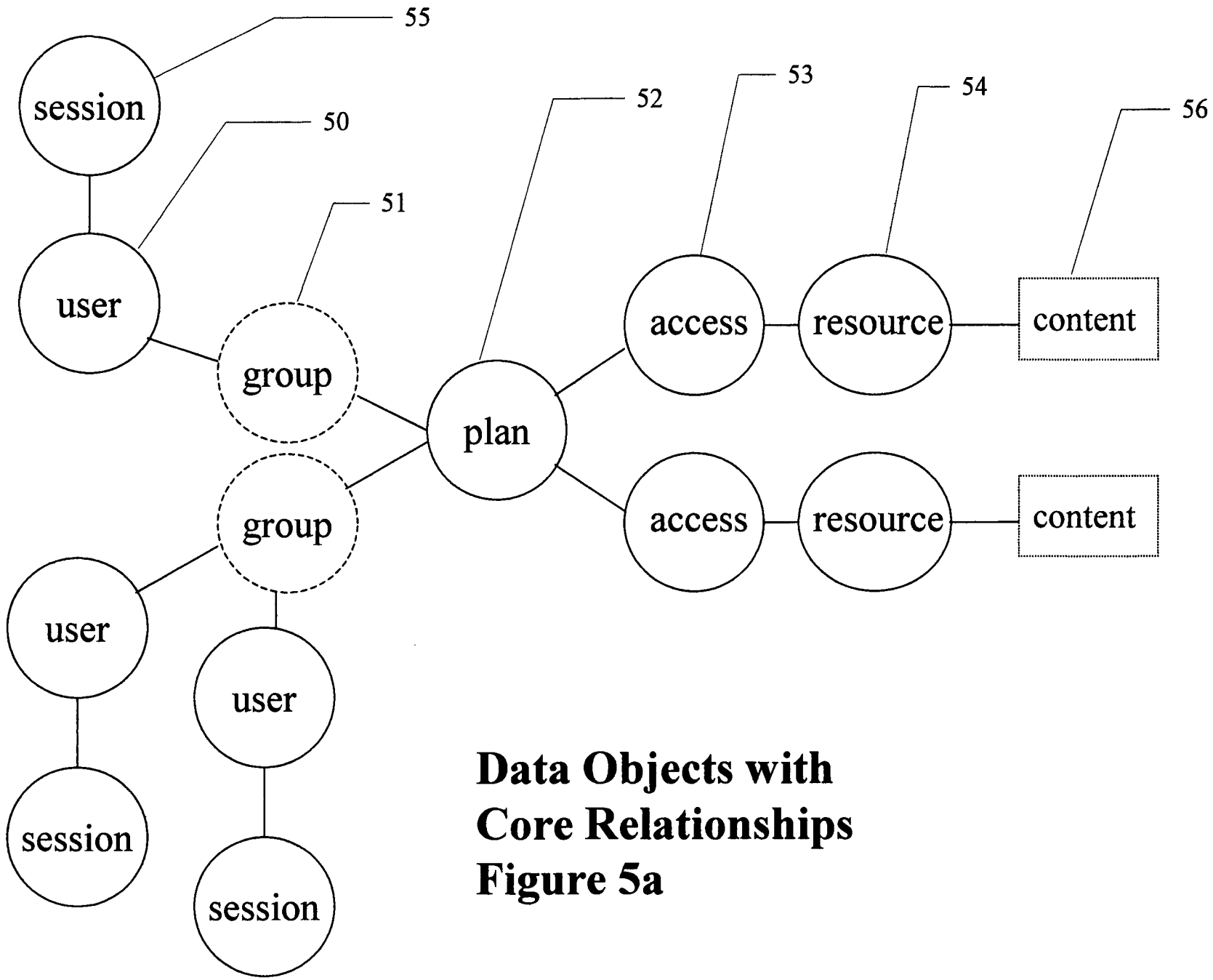
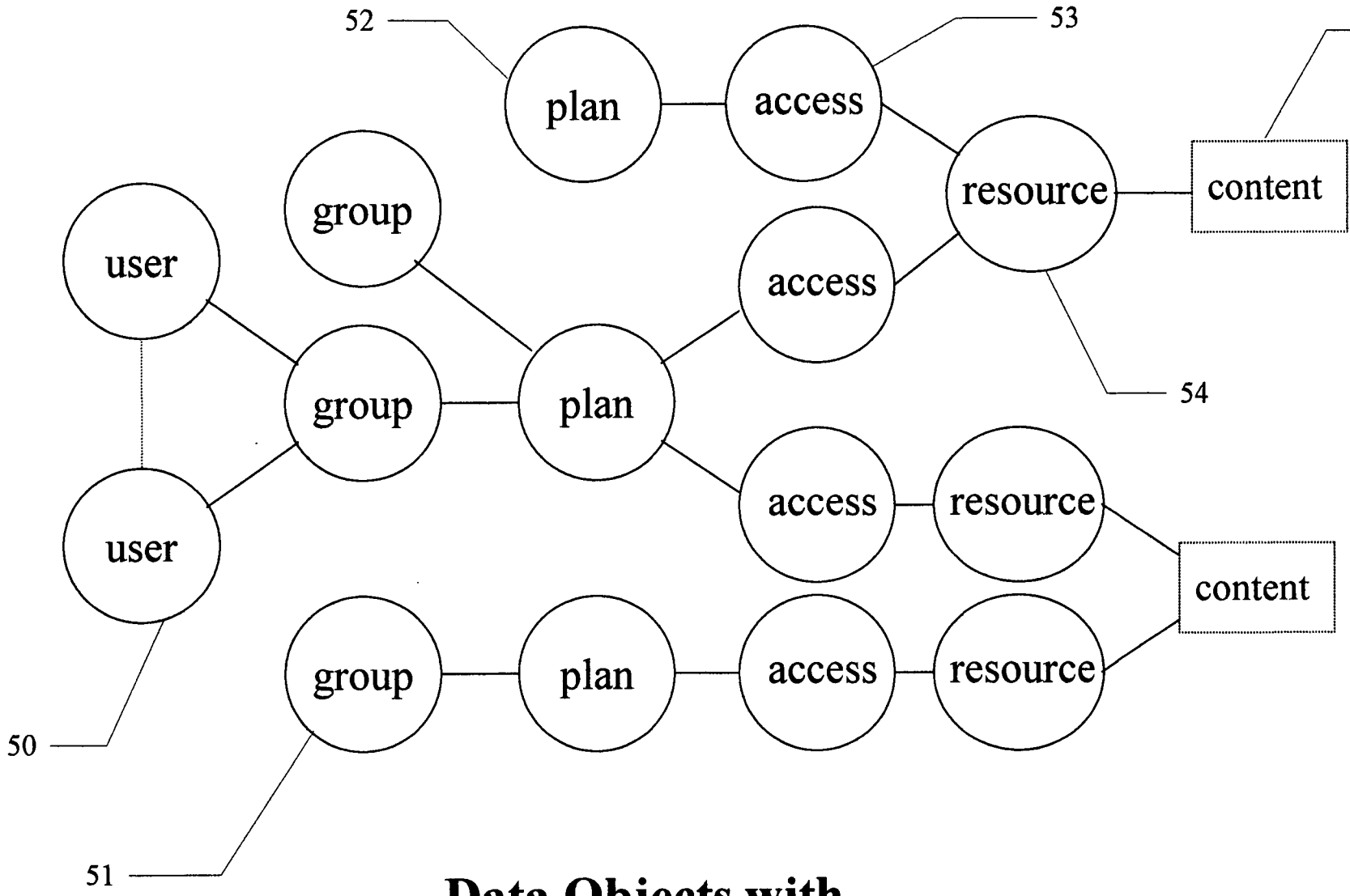

31
32b
42
43
44
action module execution processor
(see Figure 4b)
interated host connector module
interated host connector module
interated host connector module
host services connection manager
local web site server
direct host connector module
remote web site server
Action Module Manager
(see Figures 4a and 4b)
32a
40
41
18

Figure 4d



Data Objects with Core Relationships
Figure 5a



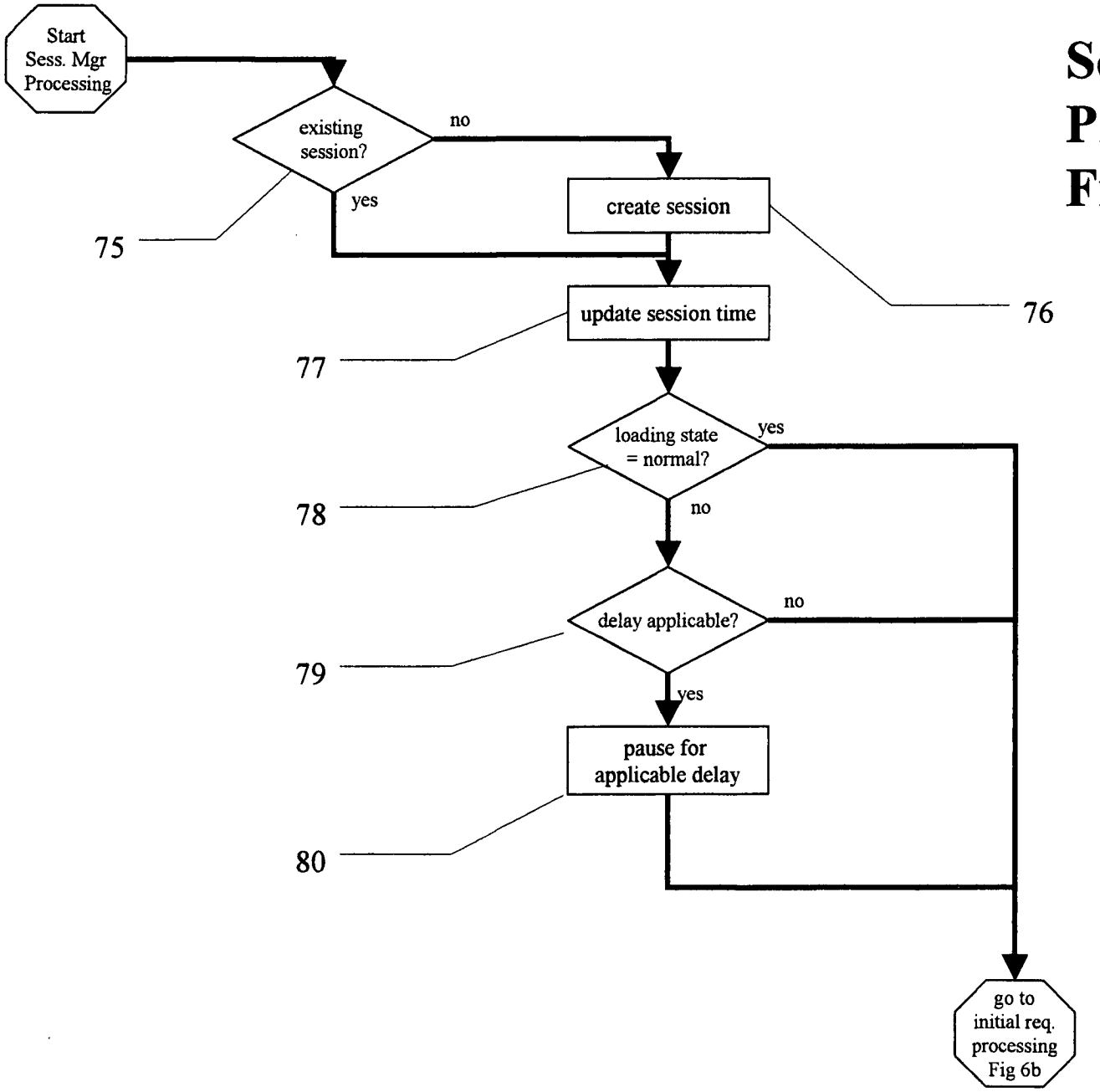
Data Objects with Extended Relationships
Figure 5b

user	group	plan	access	resource	session
user_name password expiration_date group account_balance credit_balance disabled flag credit account update administrator_level confirm confirm_total confirm_sess_trigger confirm_threshold activation_code activation_code_expire pwd_chg_allowed concurrent_limit concurrent_number concurrent_charge concurrent_action last_login email credit_limit	group_name plan credit_limit max_user_credit credit balance payment amount payment interval next_payment_due grace_period account_balance max_user_balance group_manager discount disable grouptype	plan_name base_discount use_credit_flag secure_mode volume_discount volume_level	plan resource access_flag	resource name description location credits price suppress_duplicates summary keywords alias	session_id user plan current_url previous_url visited_urls purchases credits temp_account balance verify_purchase verify_credit last_visited max_idle max_life max_expire

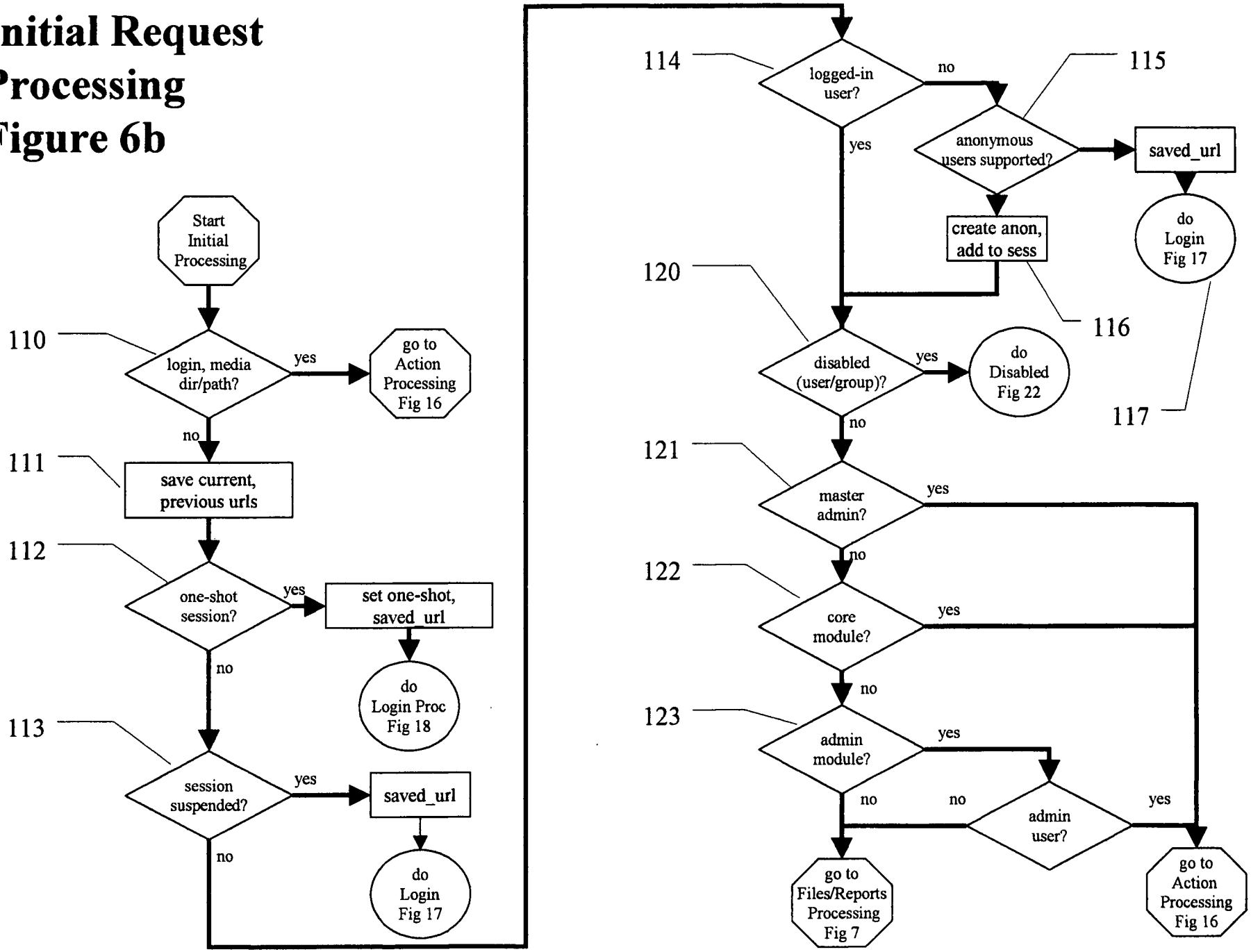
Key properties of Data Objects

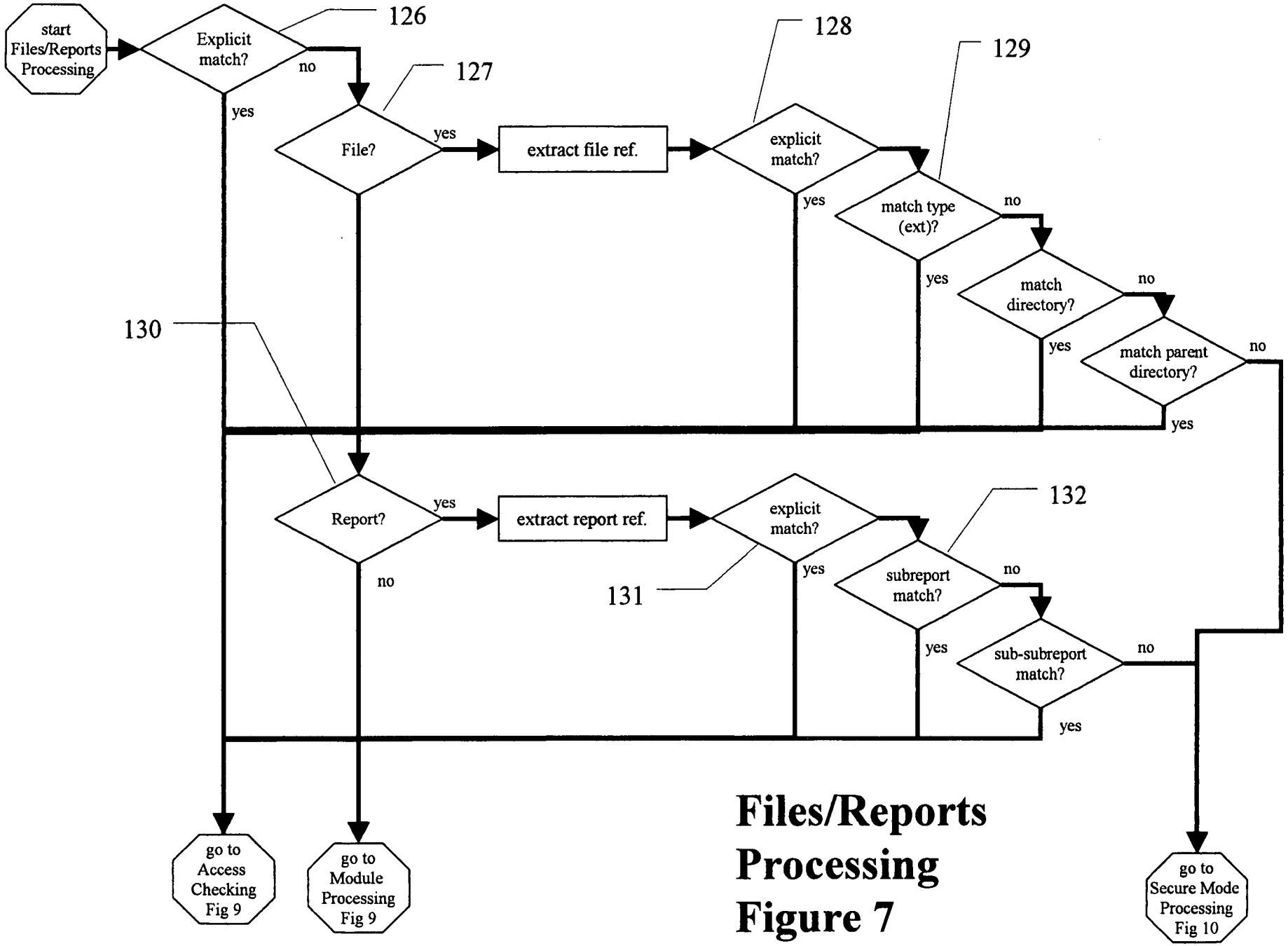
Figure 5c

Session Manager Processing Figure 6a

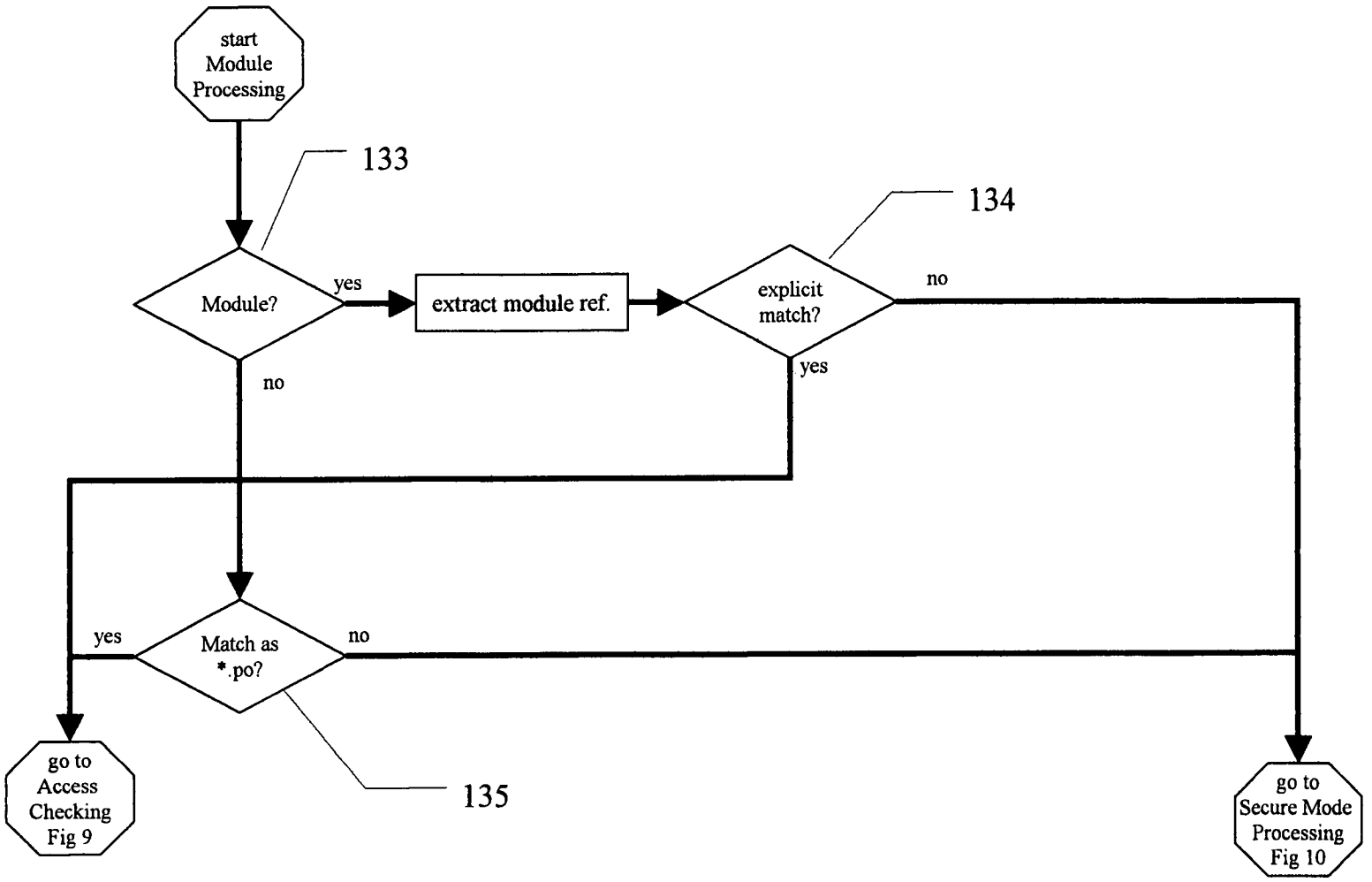


Initial Request Processing Figure 6b

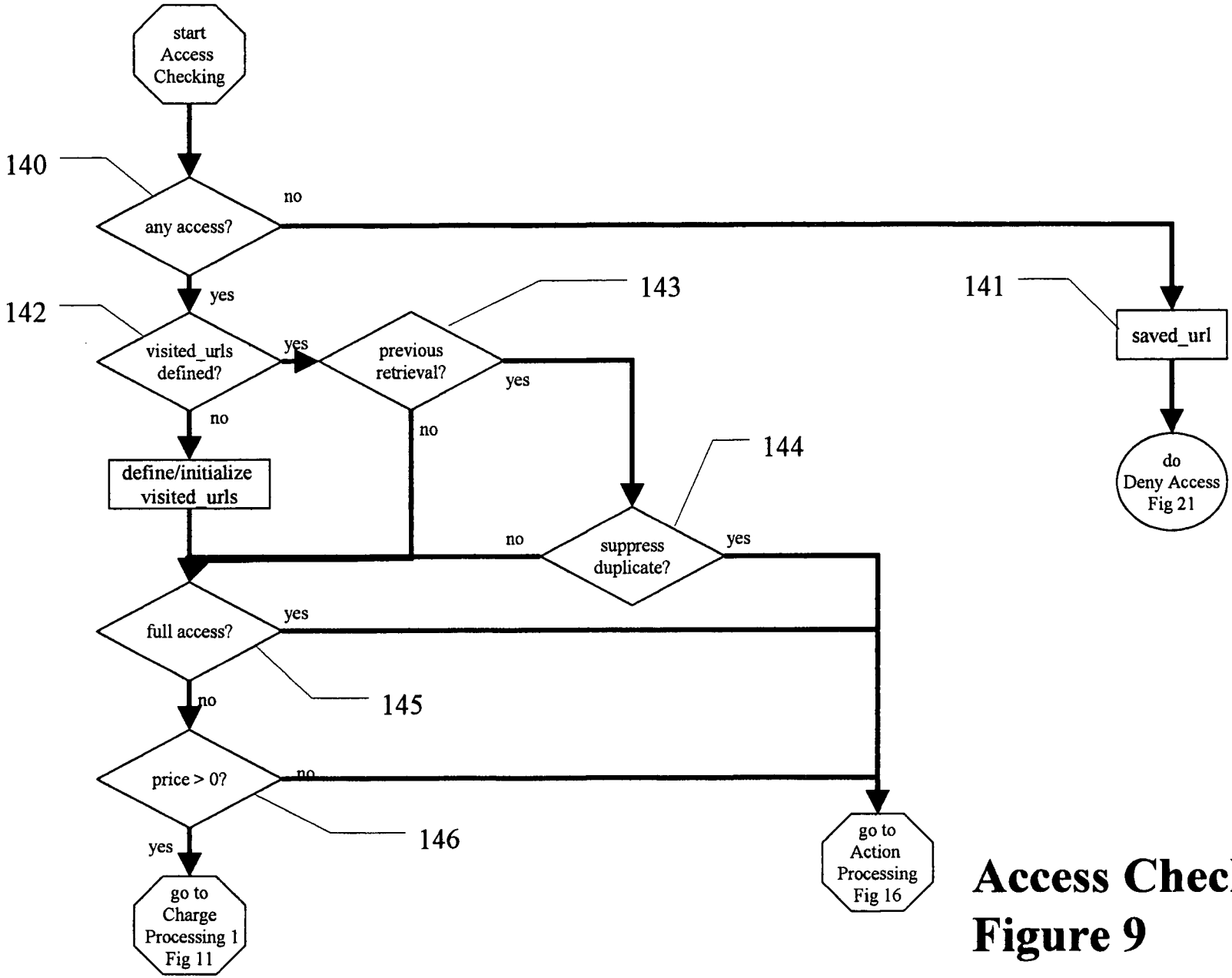




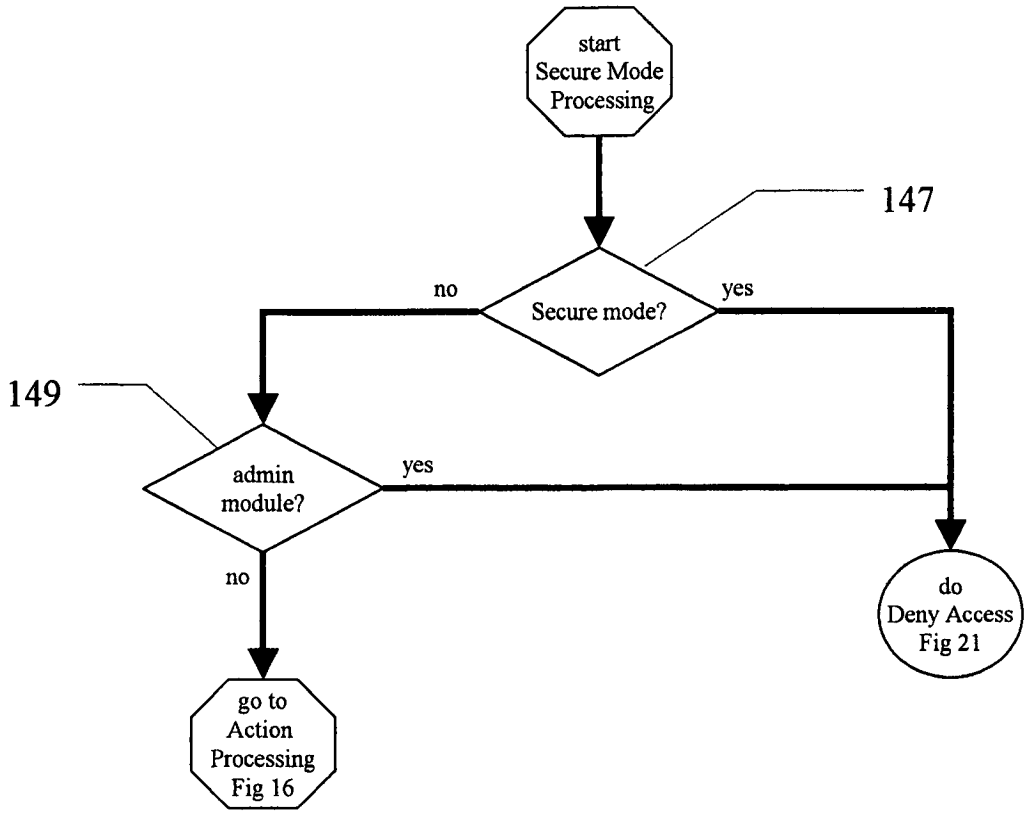
Files/Reports Processing
Figure 7



Module Processing
Figure 8

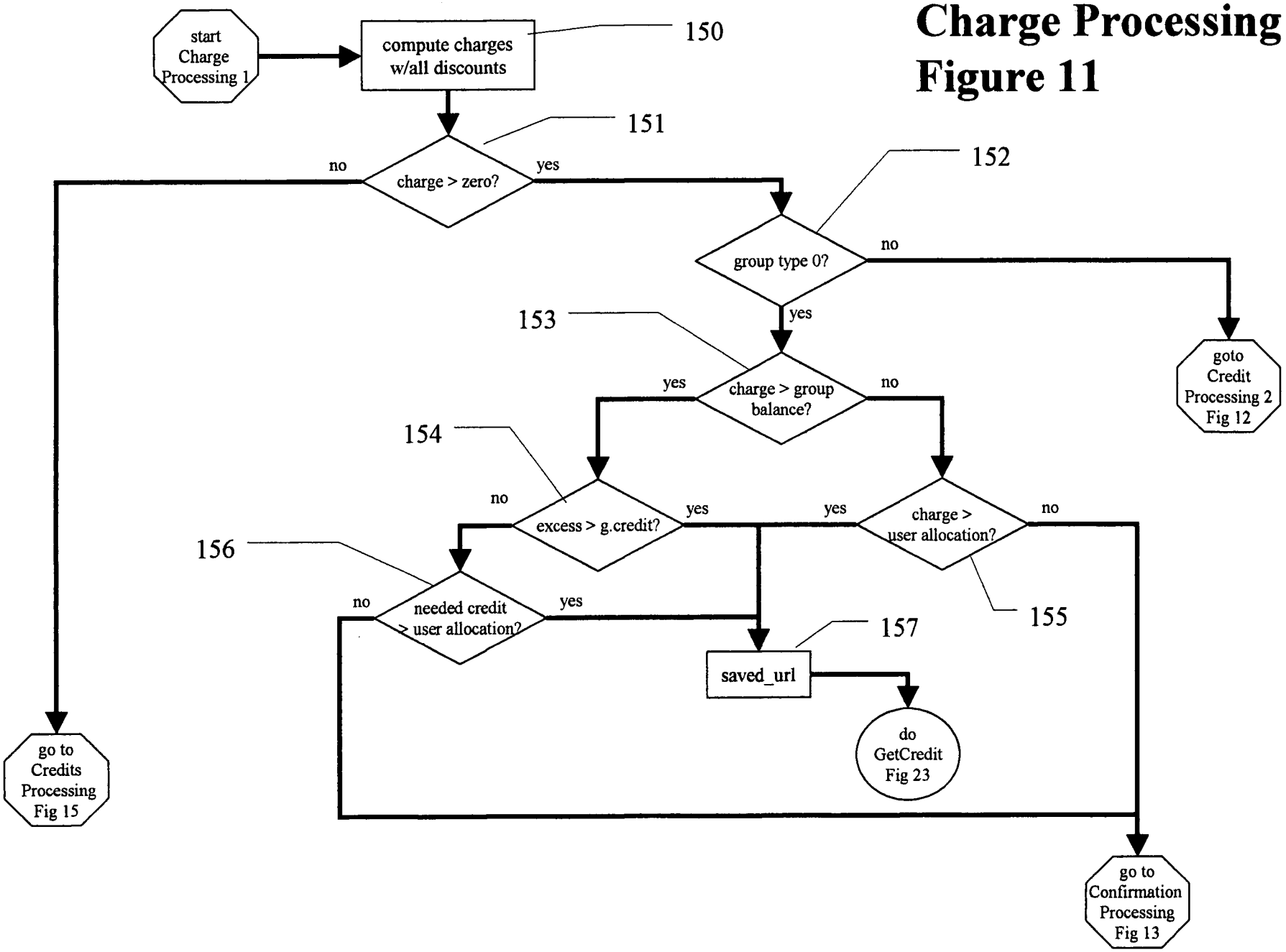


Access Checking
Figure 9

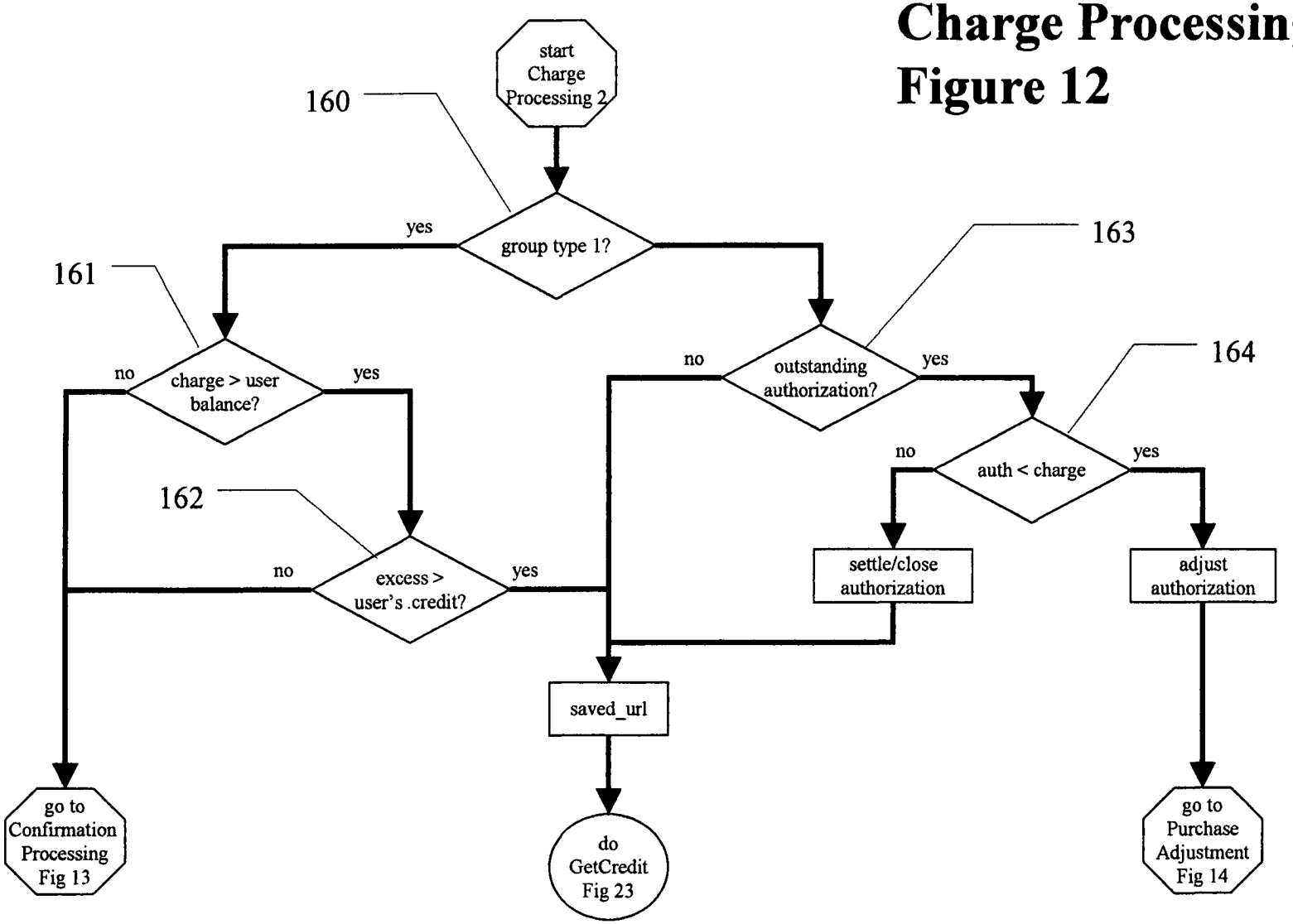


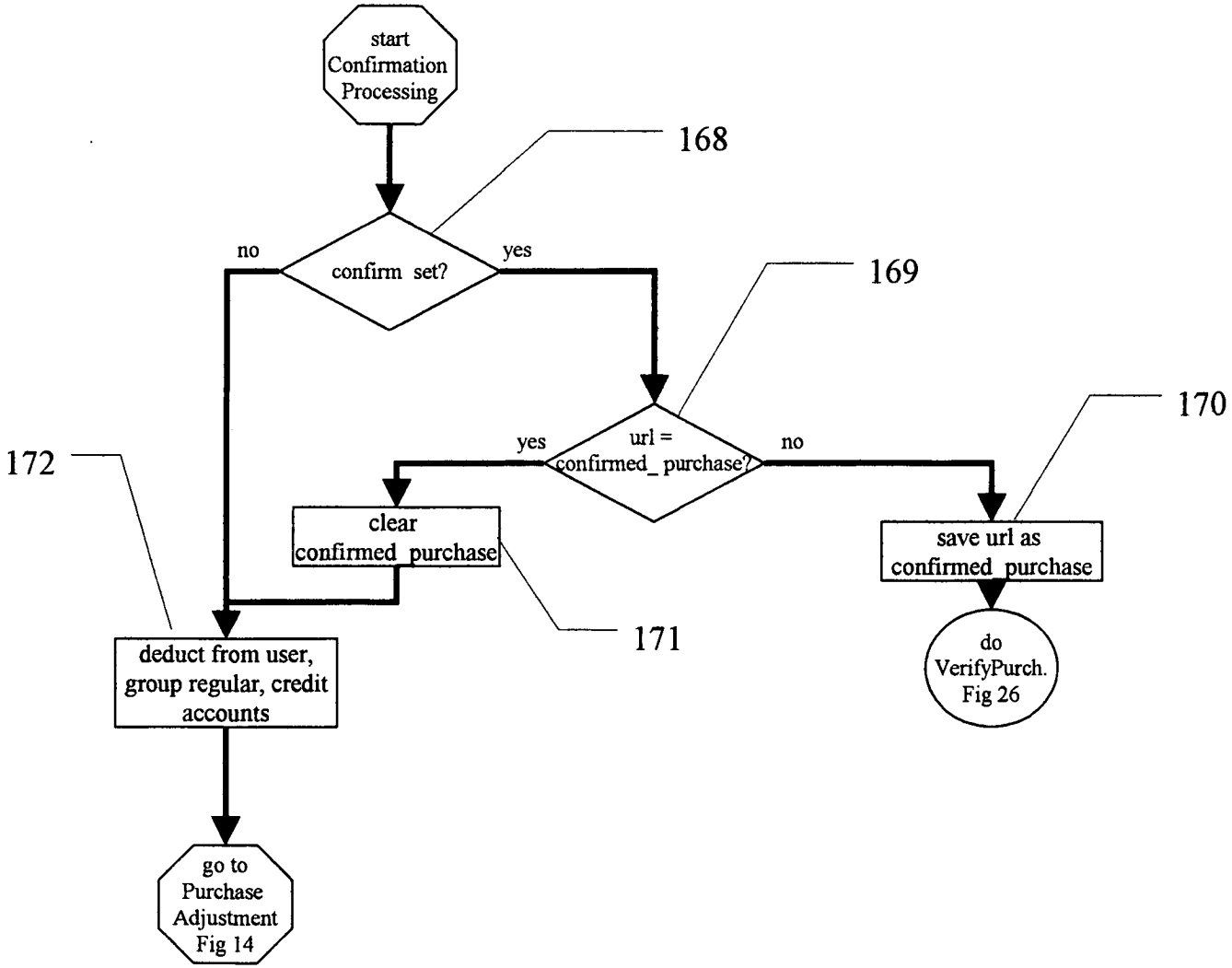
Secure Mode Processing
Figure 10

Charge Processing 1
Figure 11

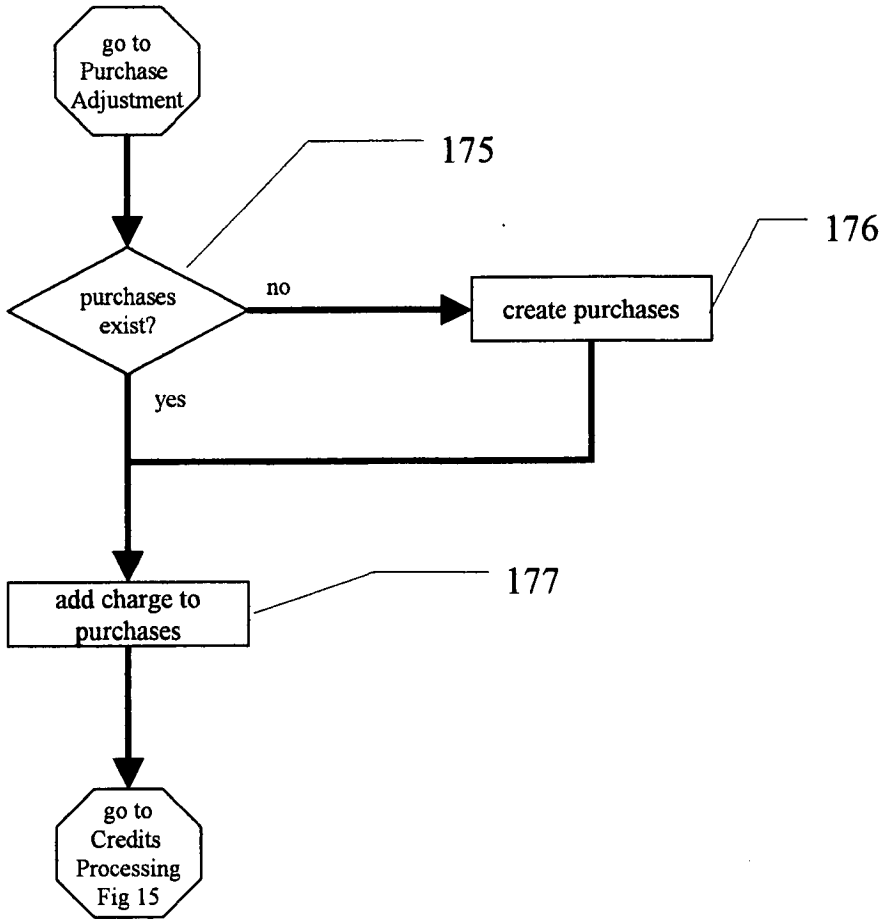


Charge Processing 2
Figure 12

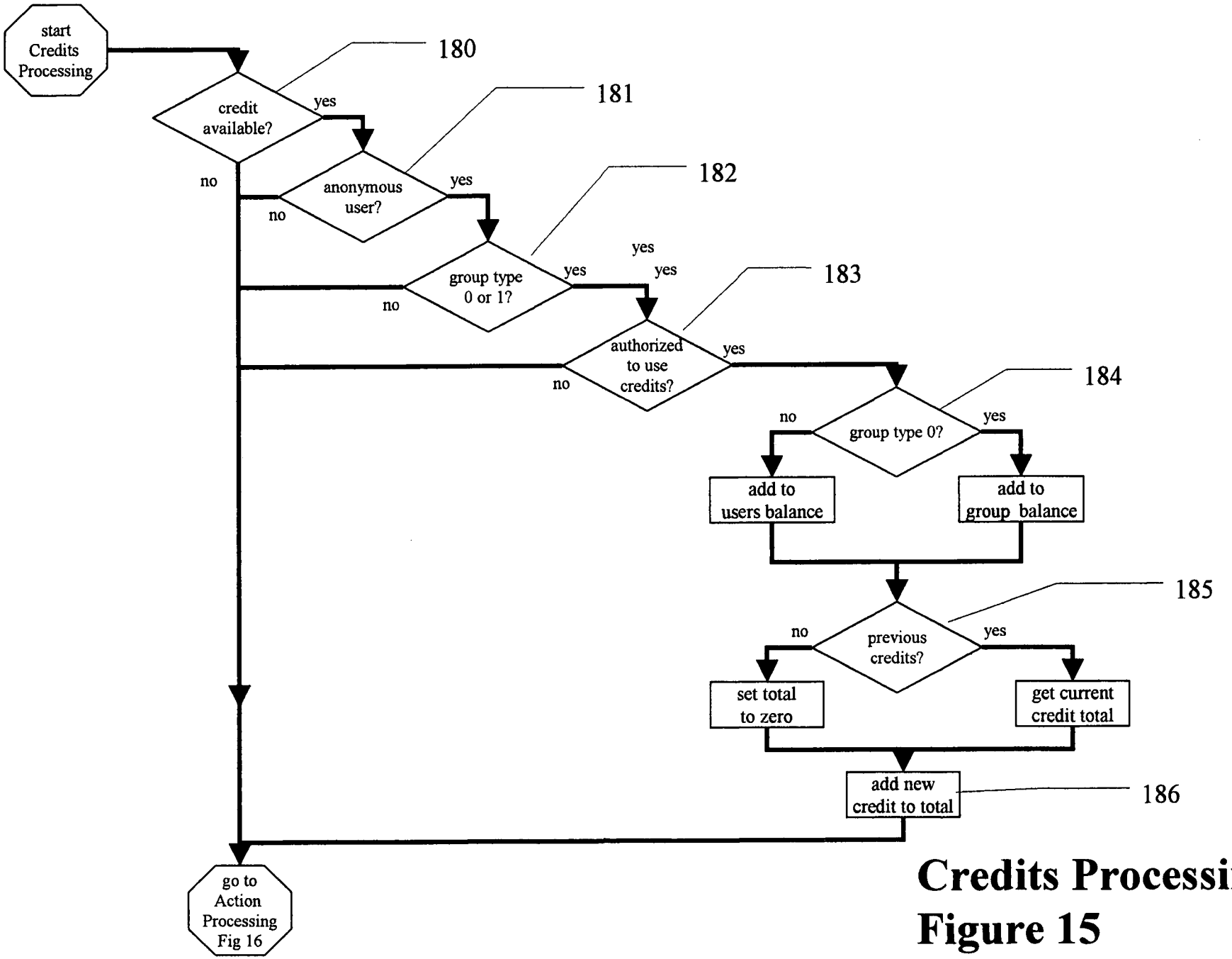




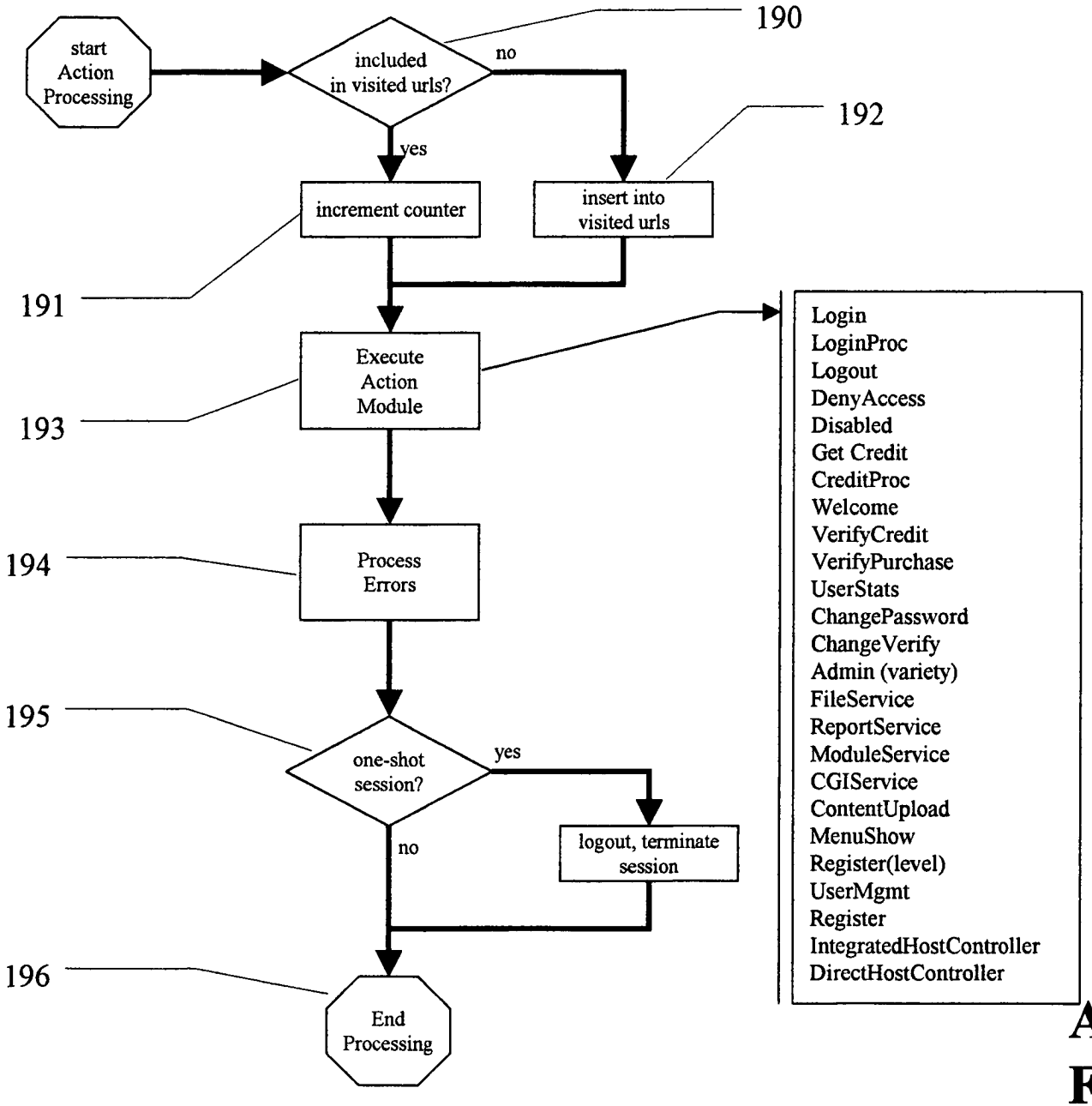
Confirmation Processing
Figure 13



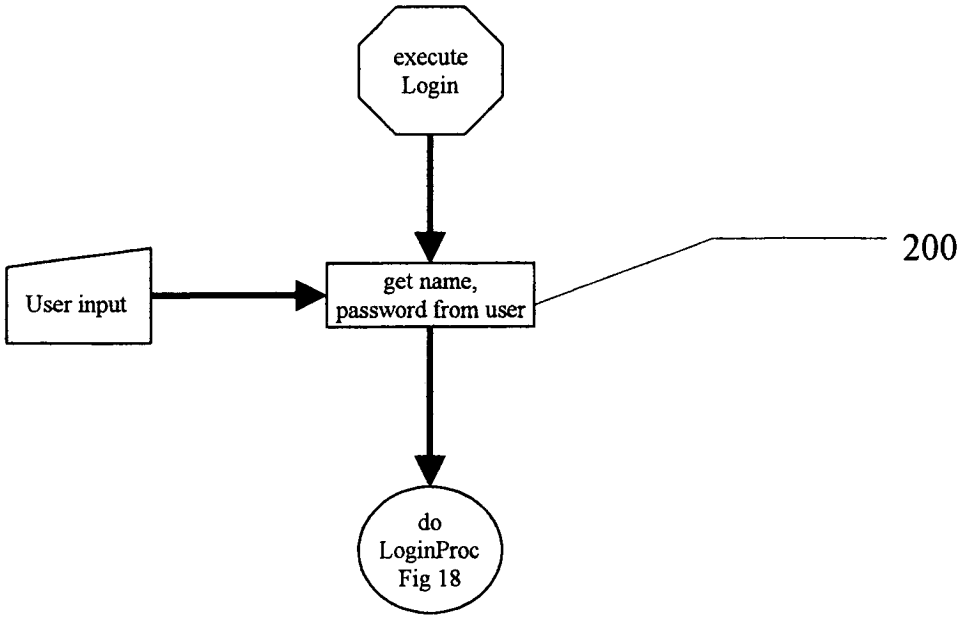
Purchase Adjustment
Figure 14



Credits Processing
Figure 15

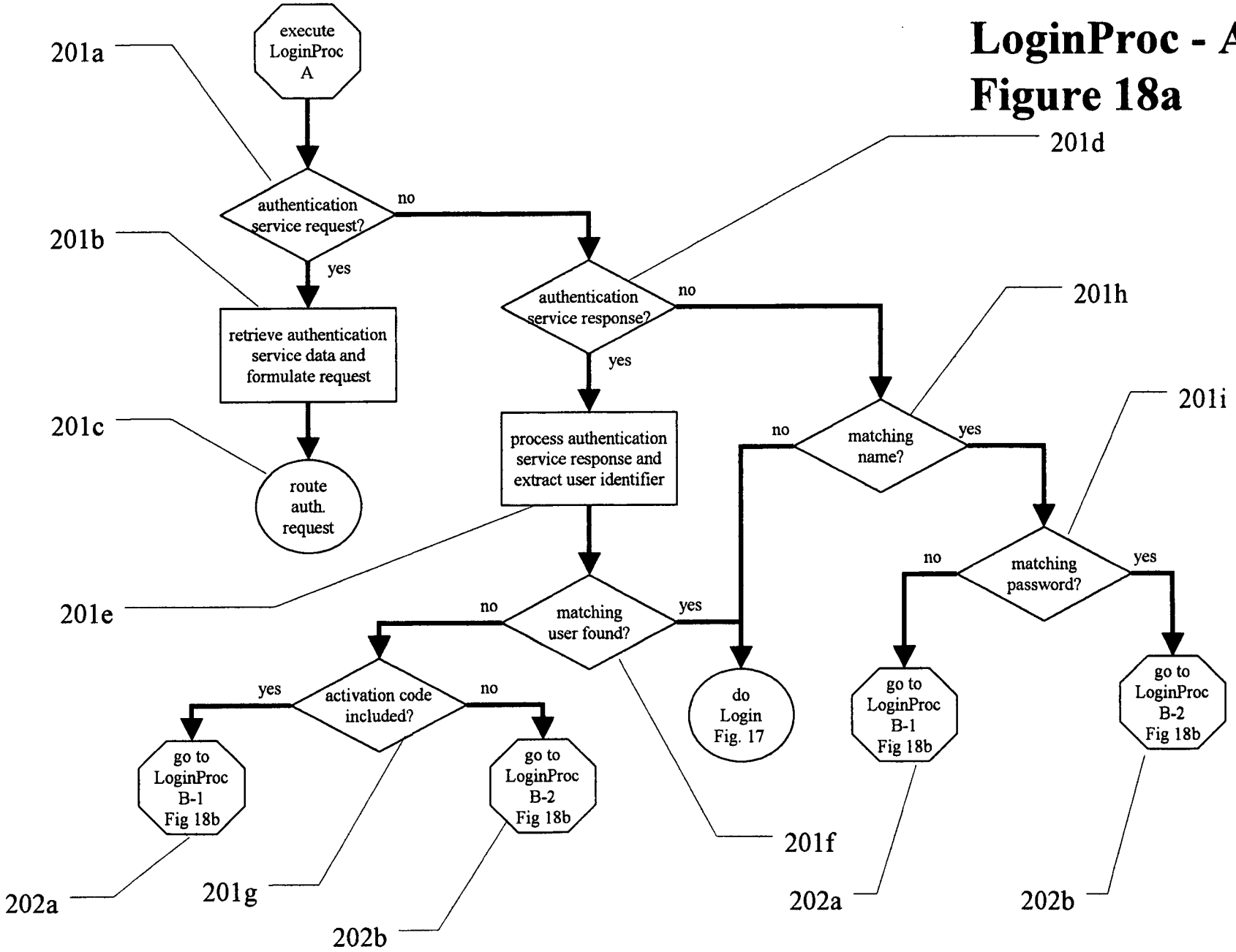


Action Processing
Figure 16

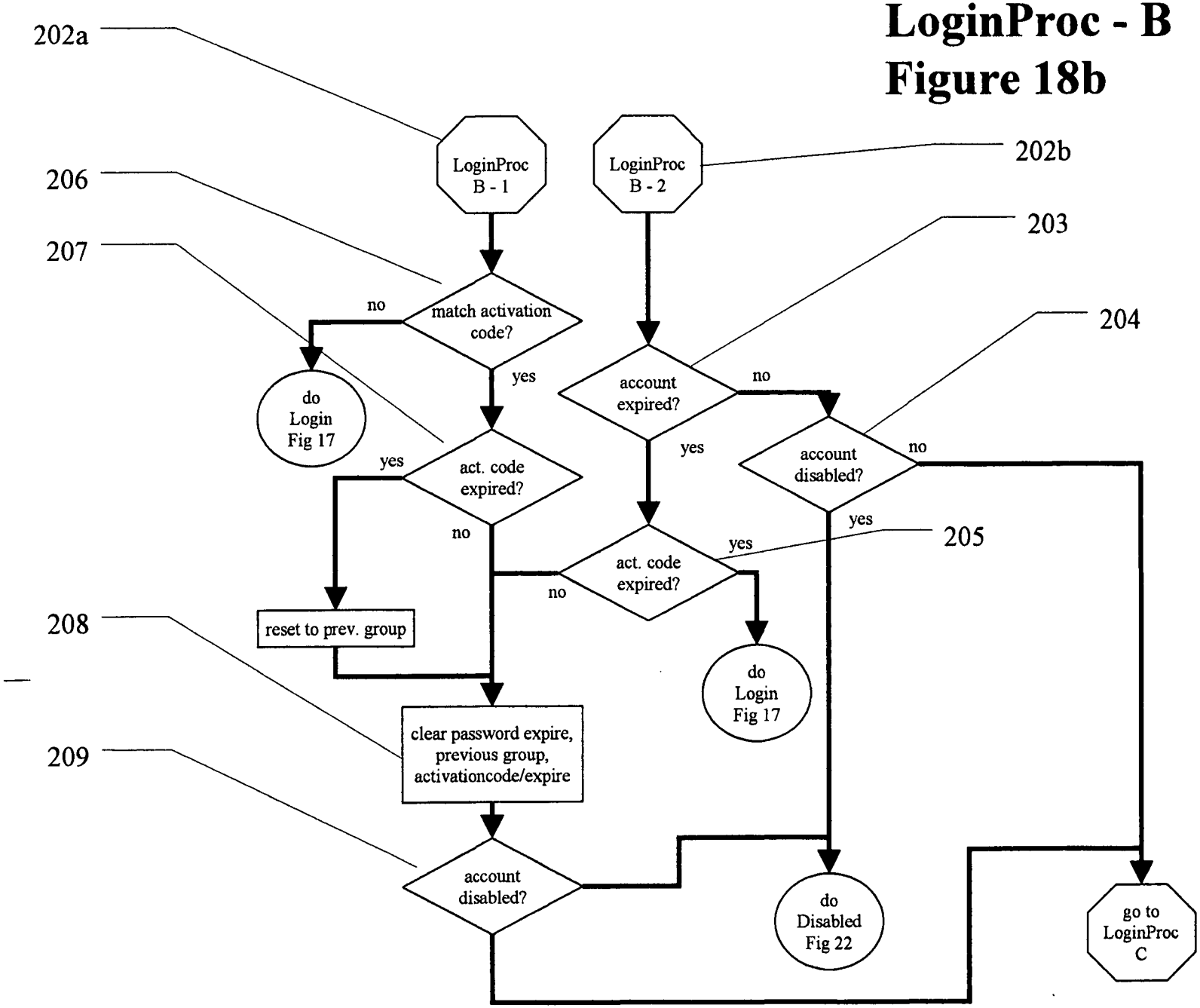


Login
Figure 17

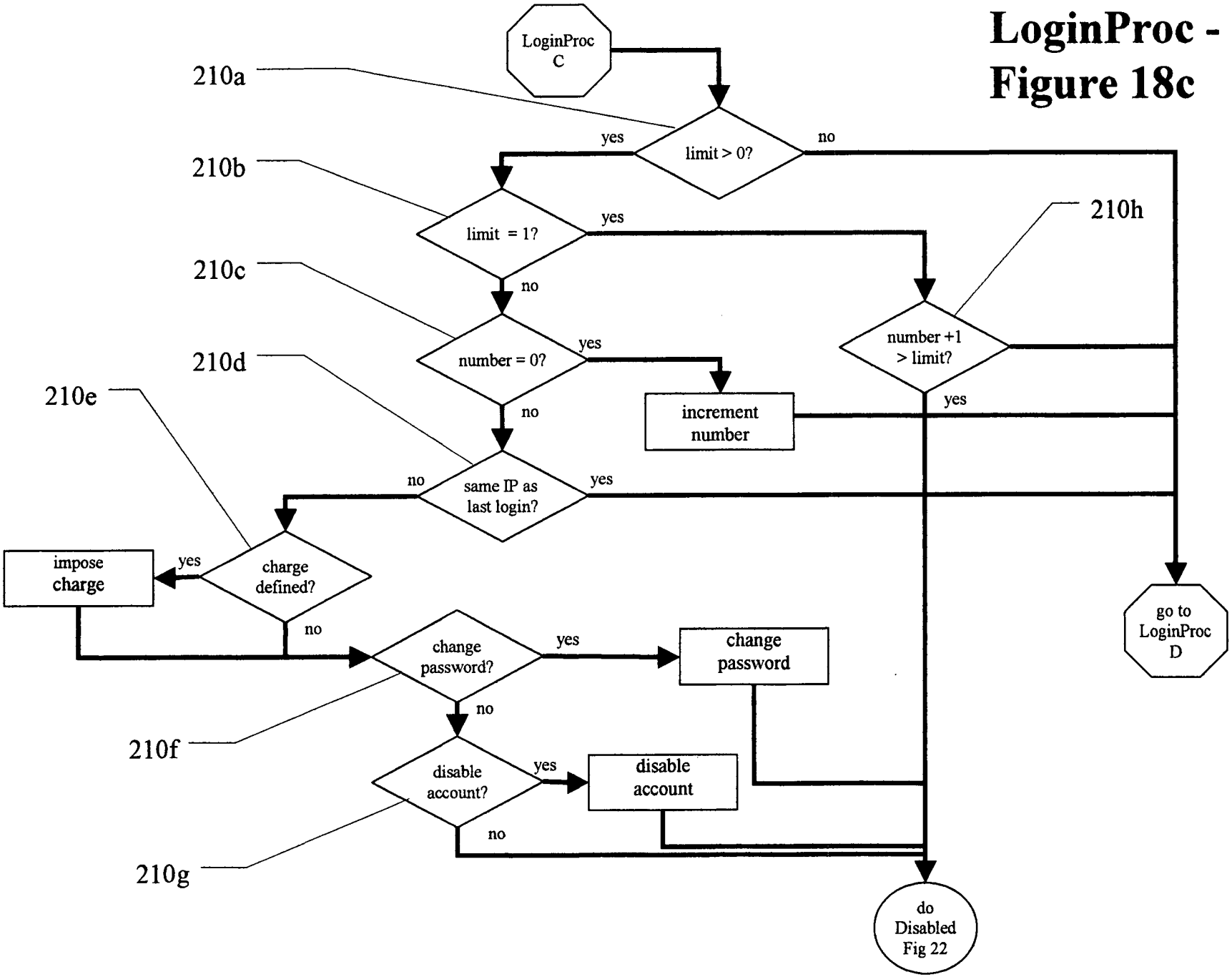
LoginProc - A
Figure 18a



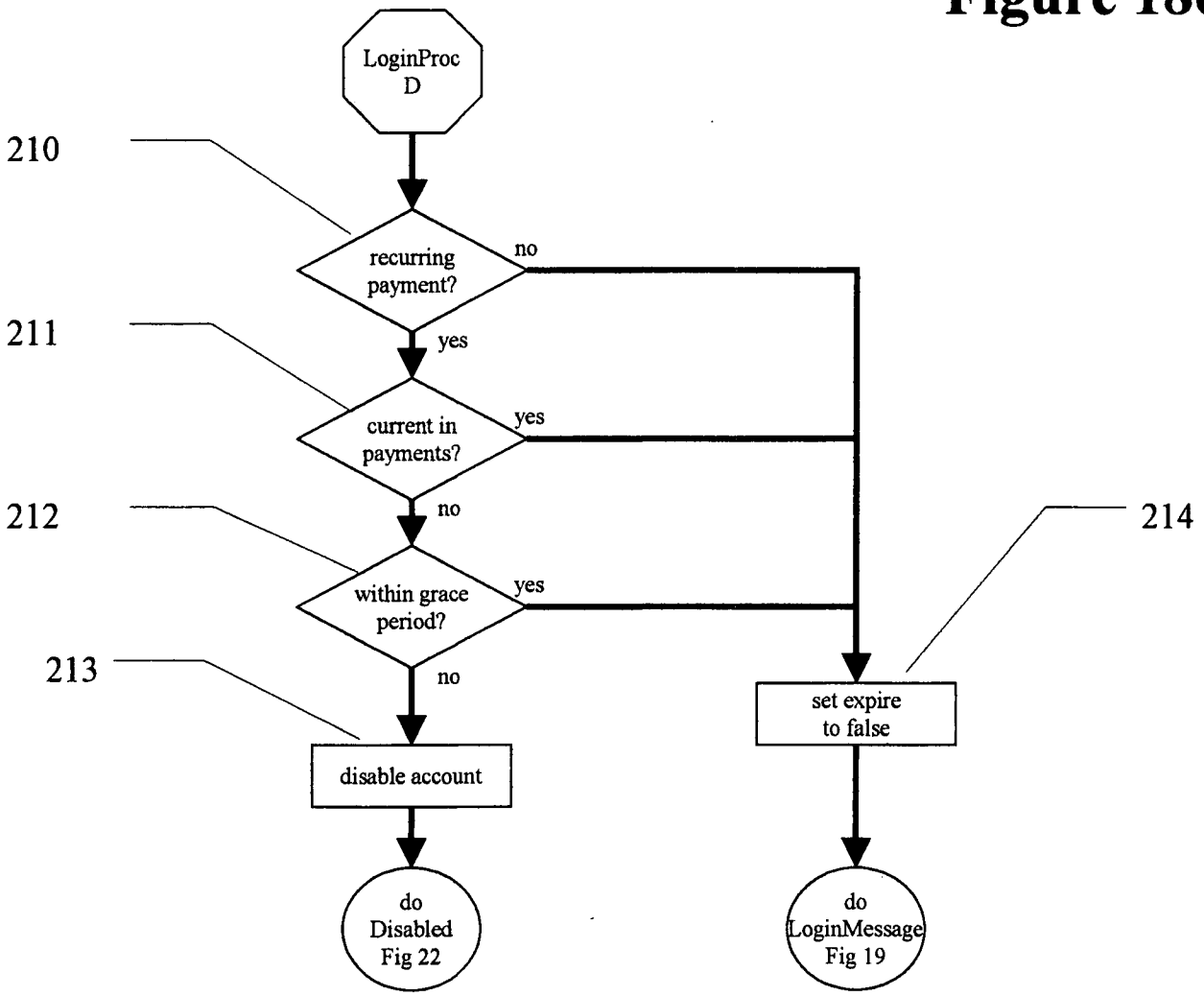
LoginProc - B
Figure 18b



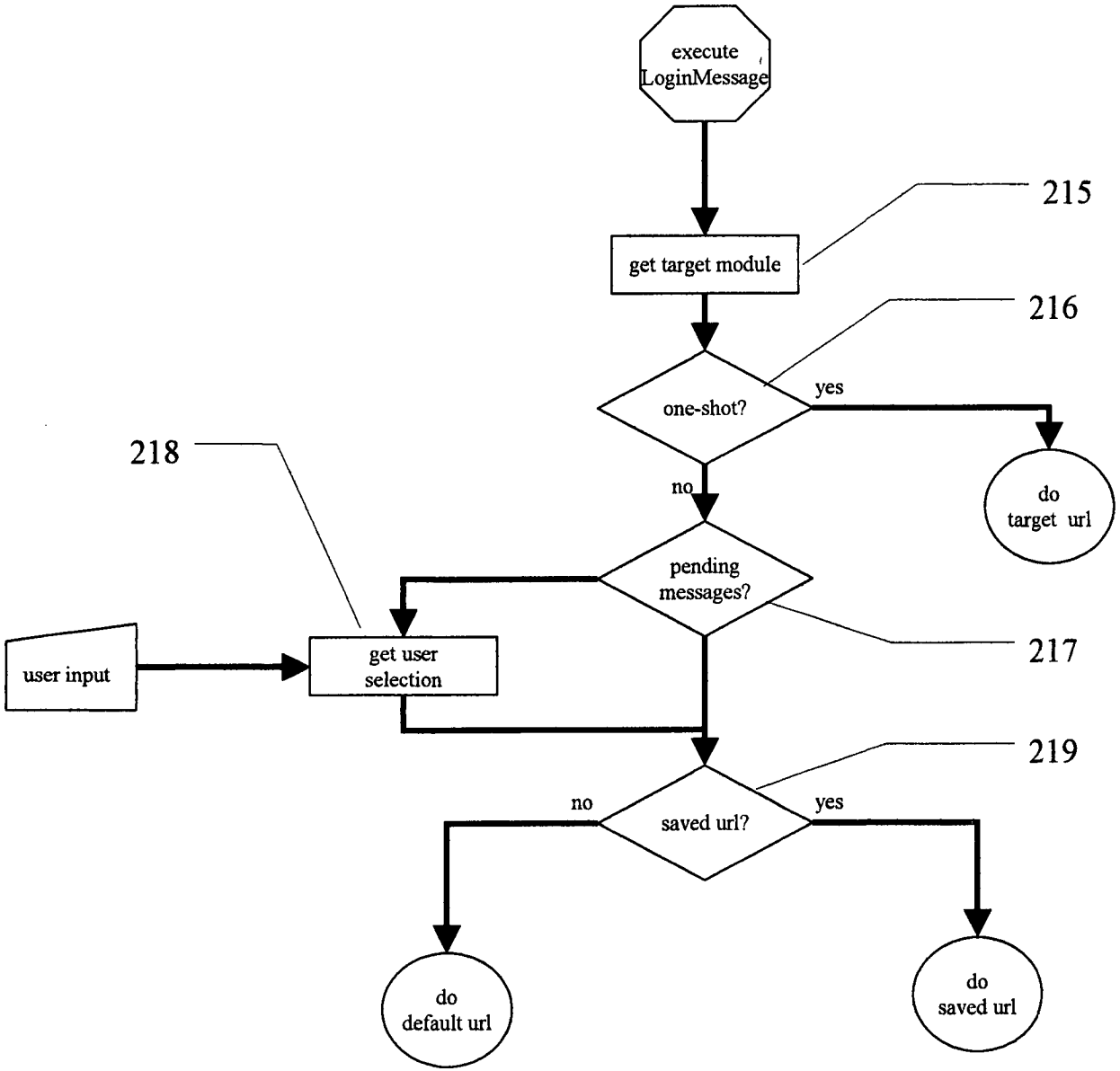
LoginProc - C
Figure 18c

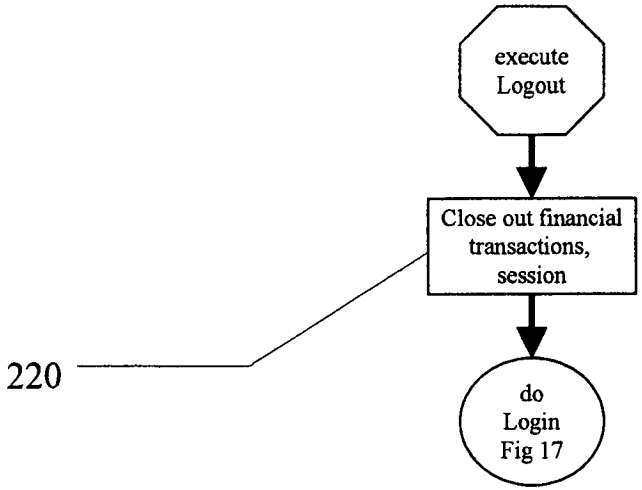


LoginProc - D
Figure 18d

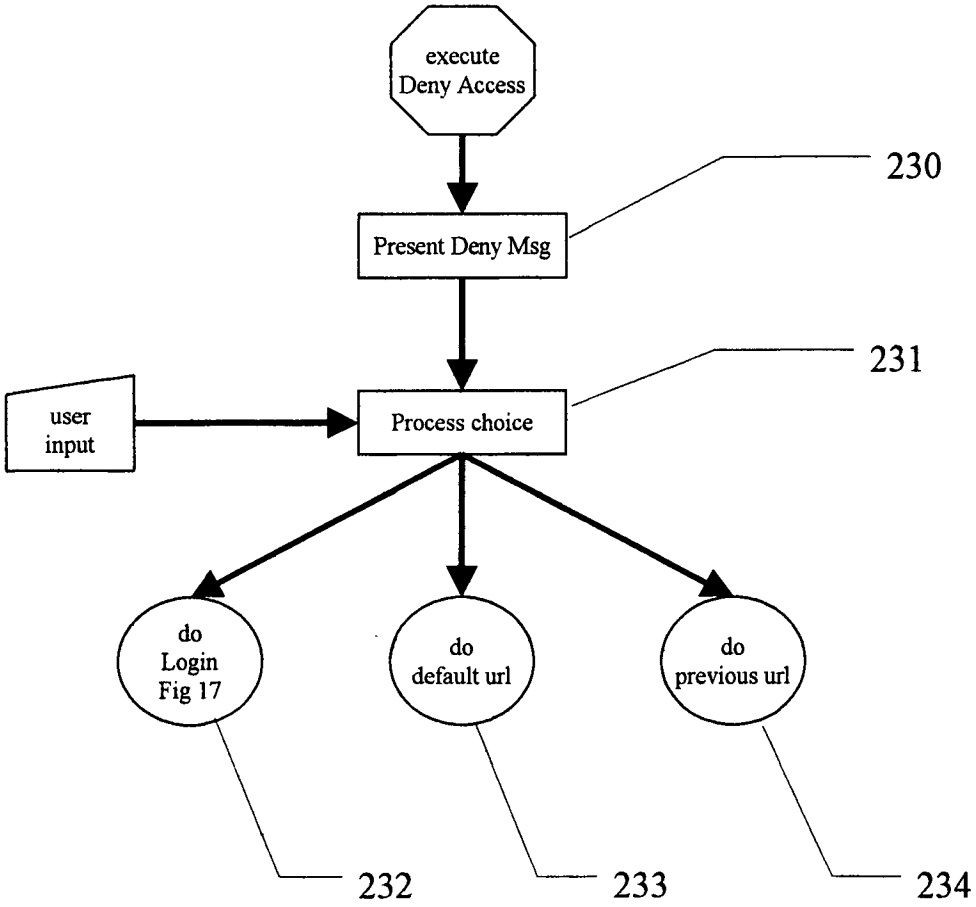


LoginMessage
Figure 19

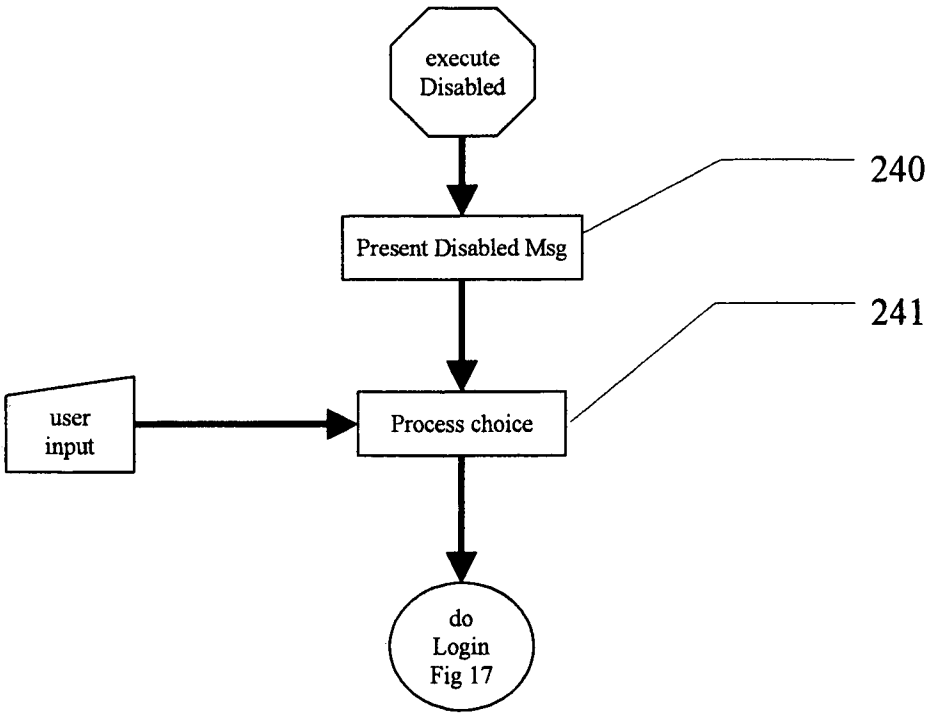




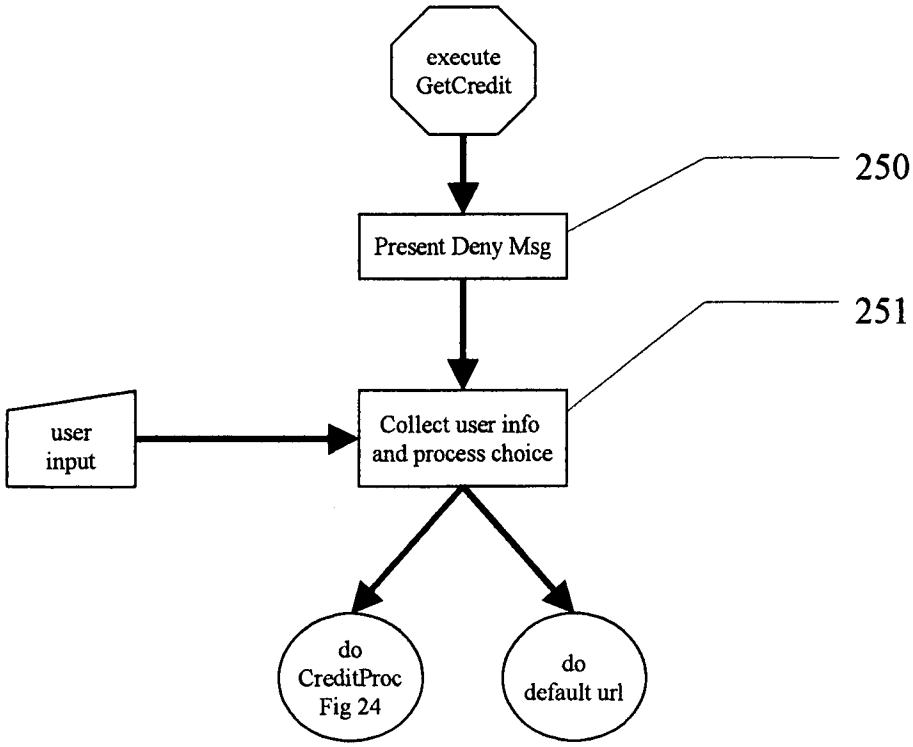
Logout
Figure 20



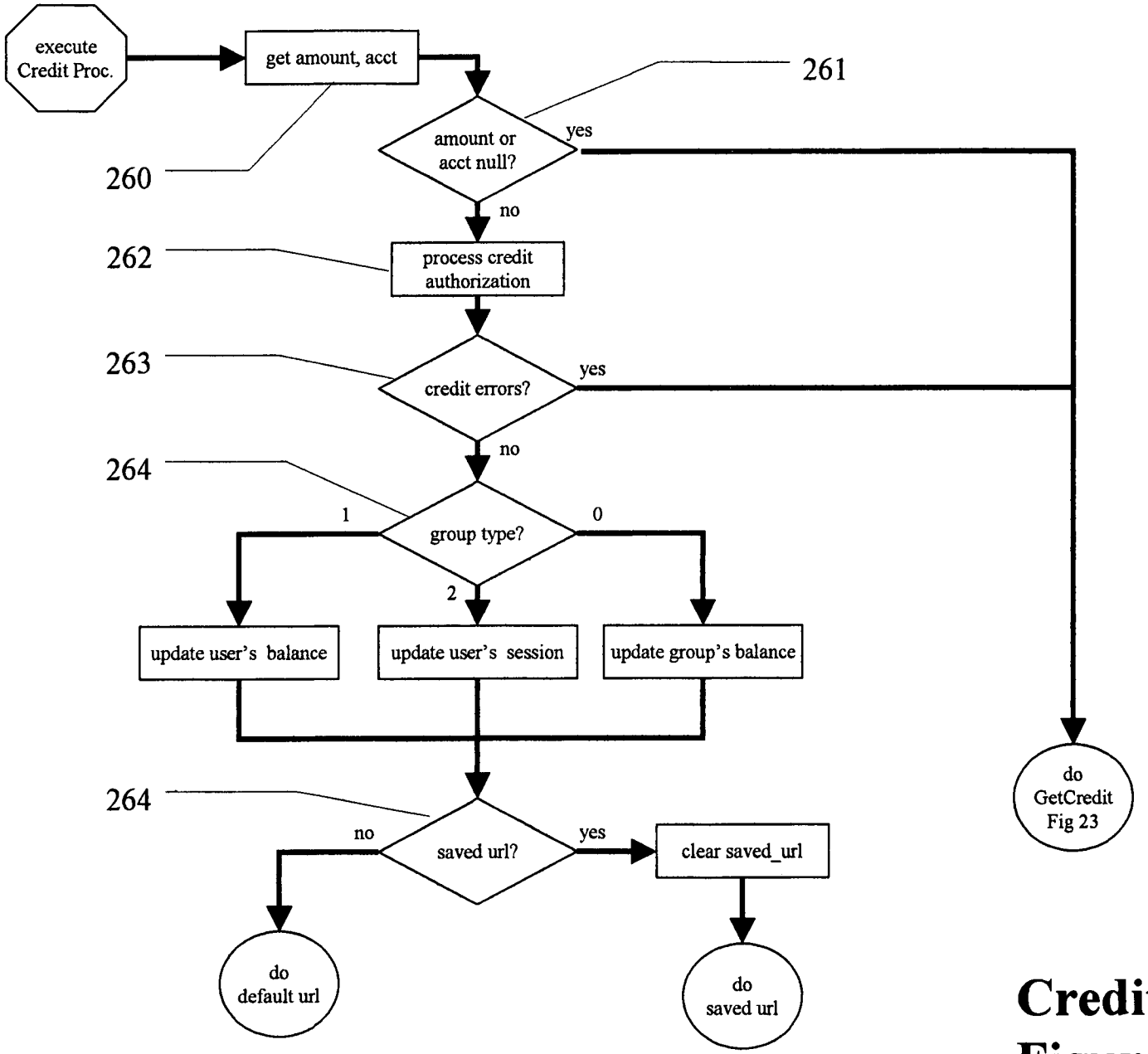
Deny Access
Figure 21



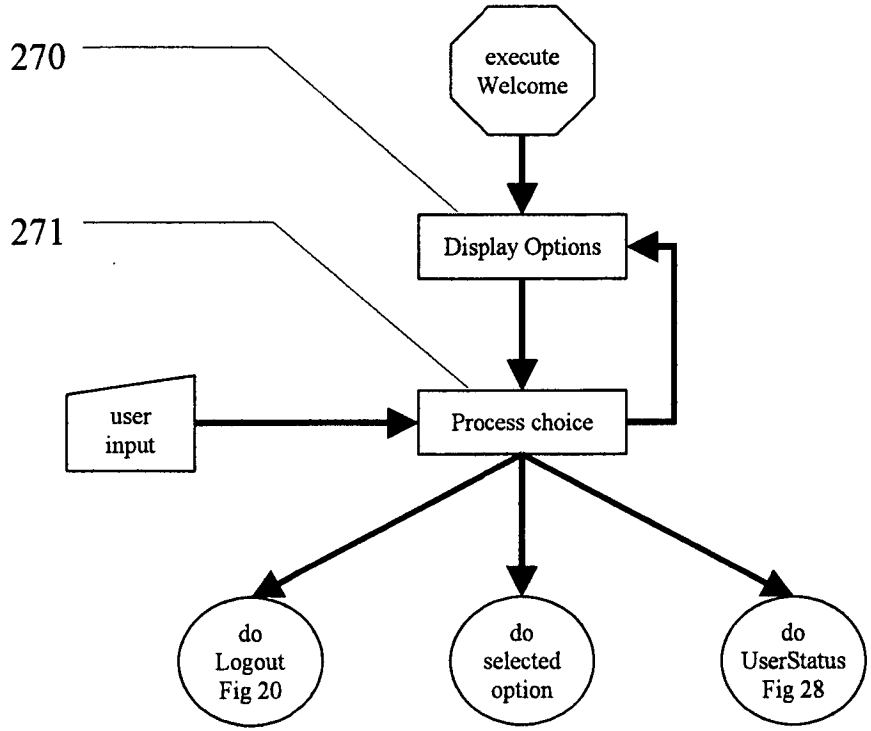
Disabled
Figure 22



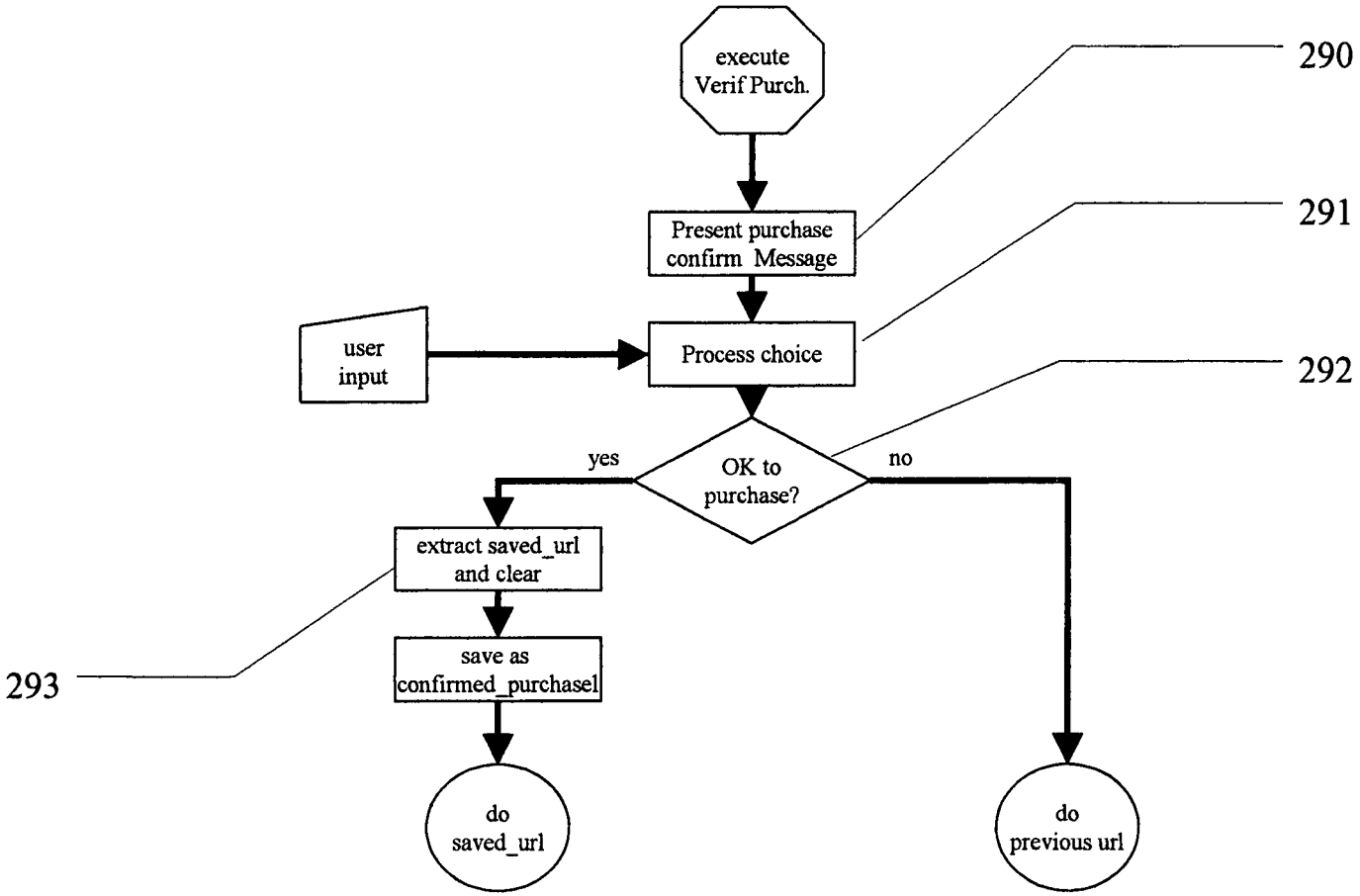
GetCredit
Figure 23



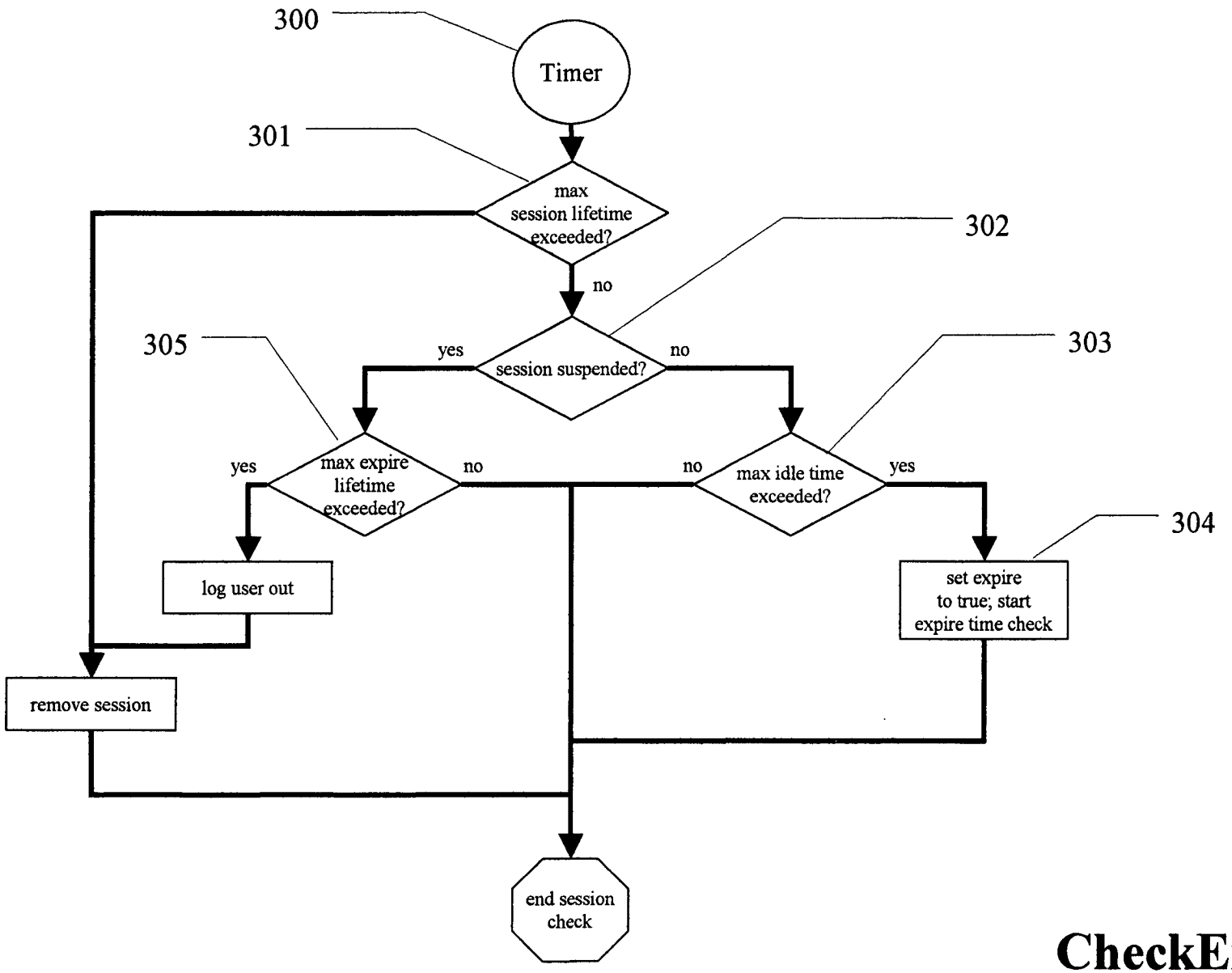
CreditProc Figure 24



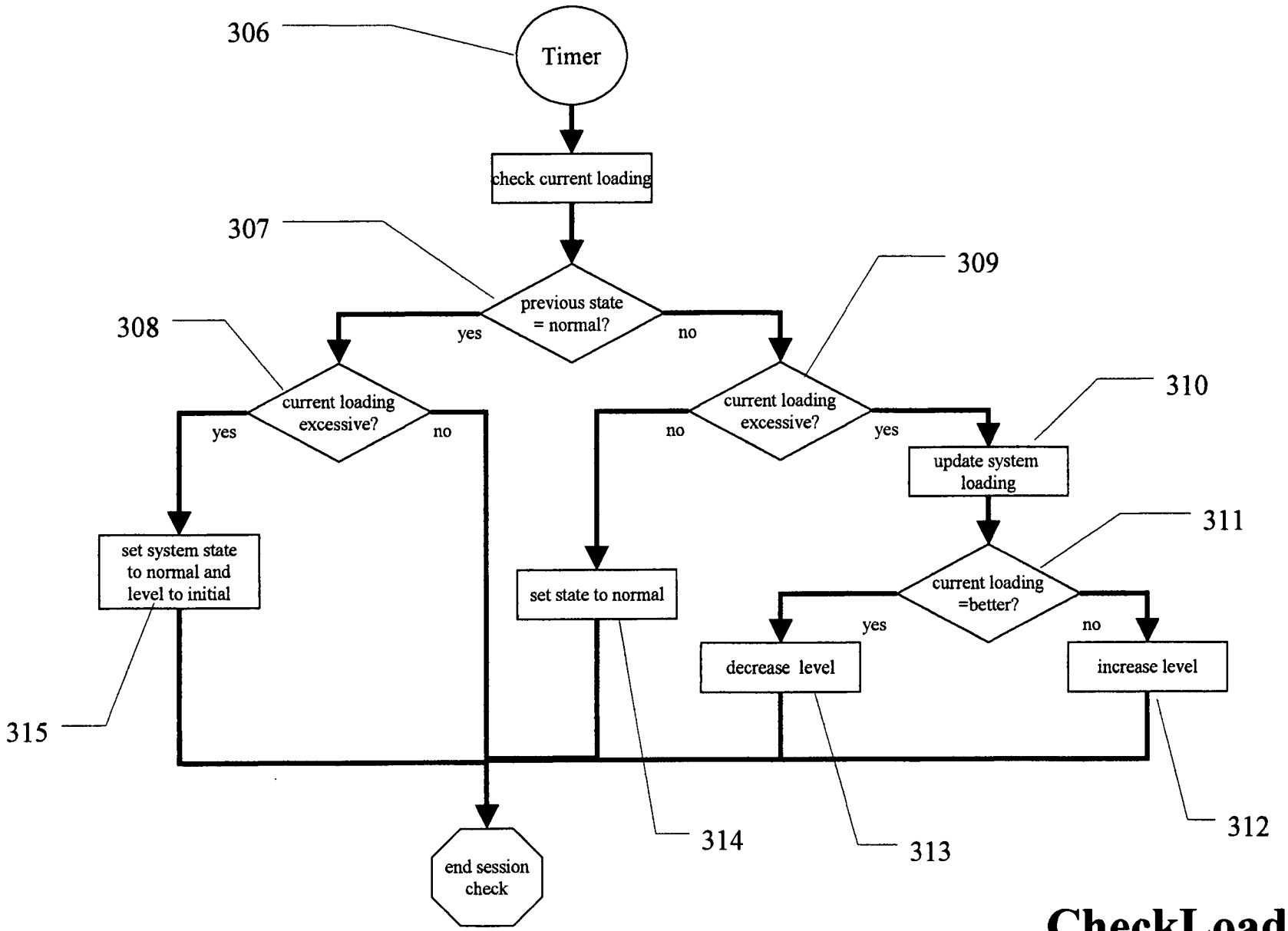
Welcome
Figure 25



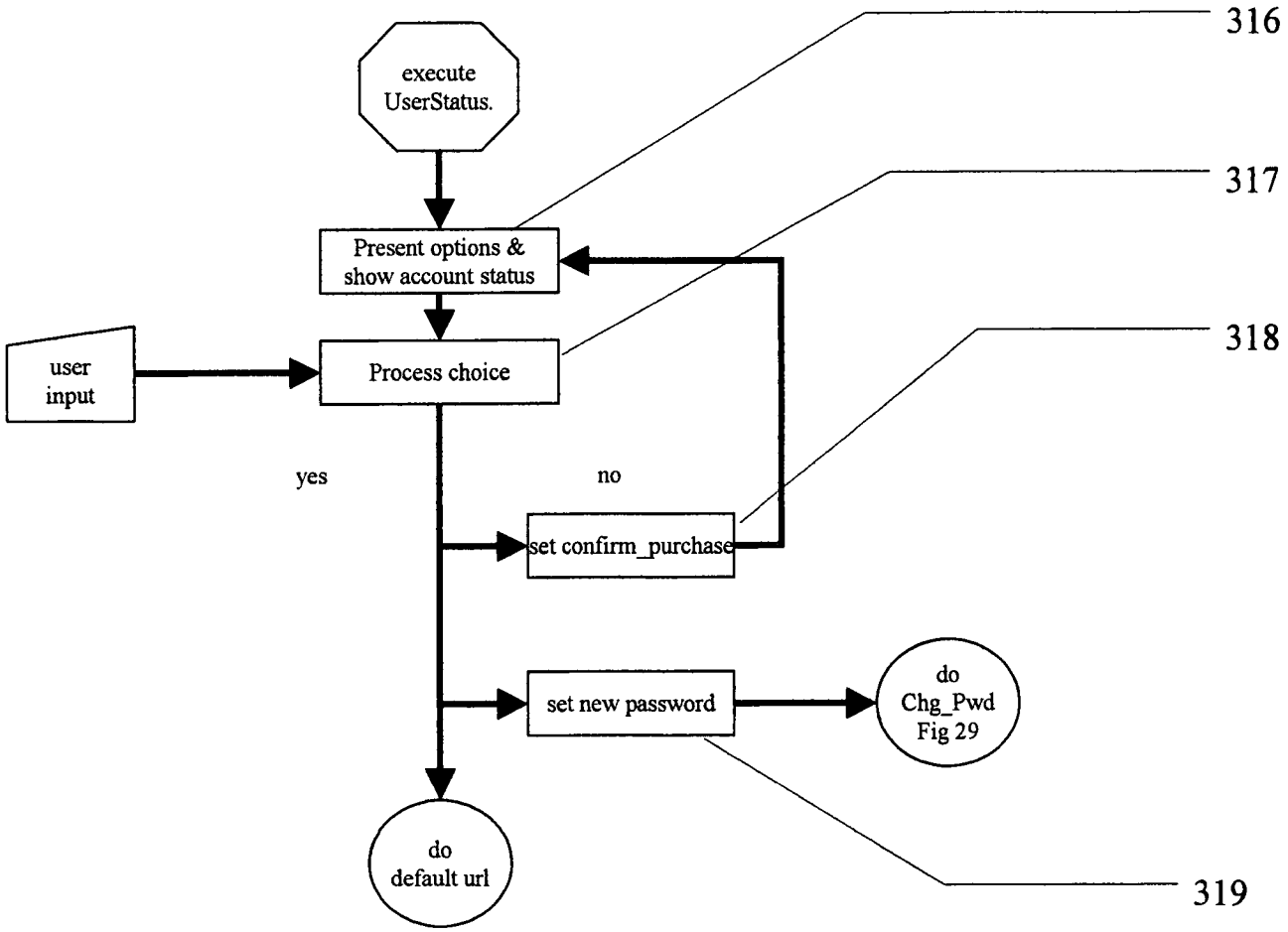
VerifyPurchase
Figure 26



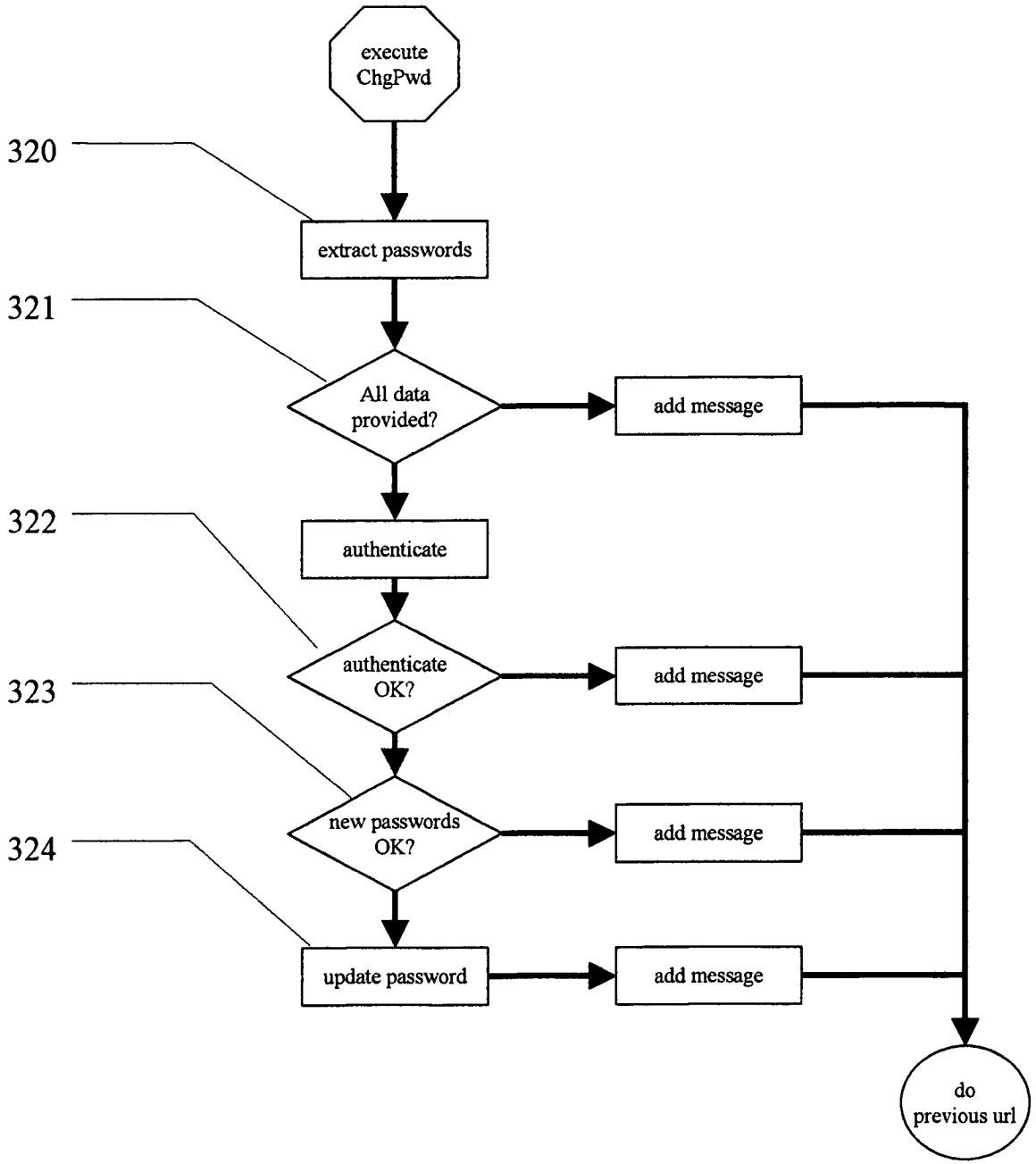
CheckExpire
Figure 27a



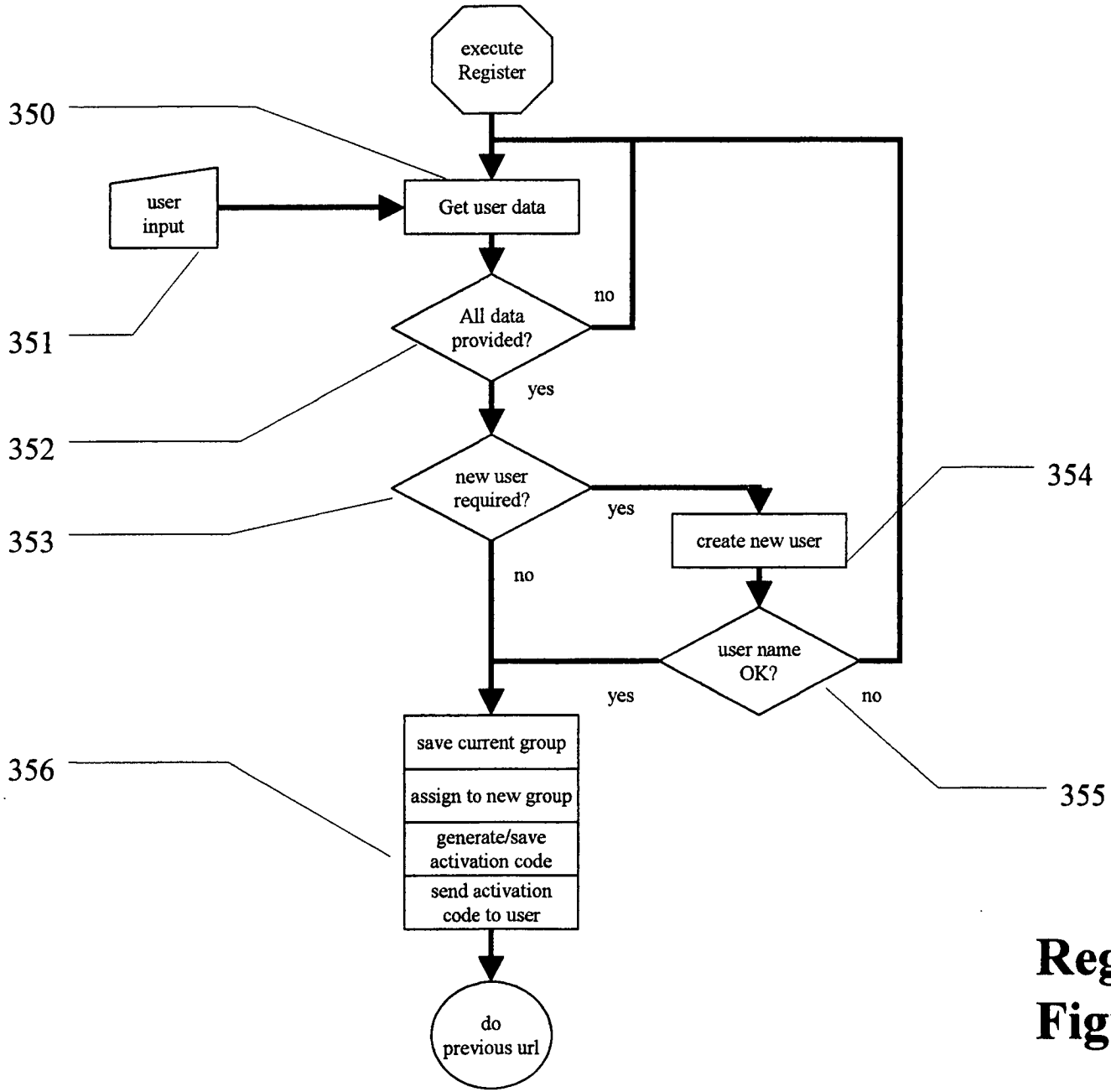
CheckLoad
Figure 27b



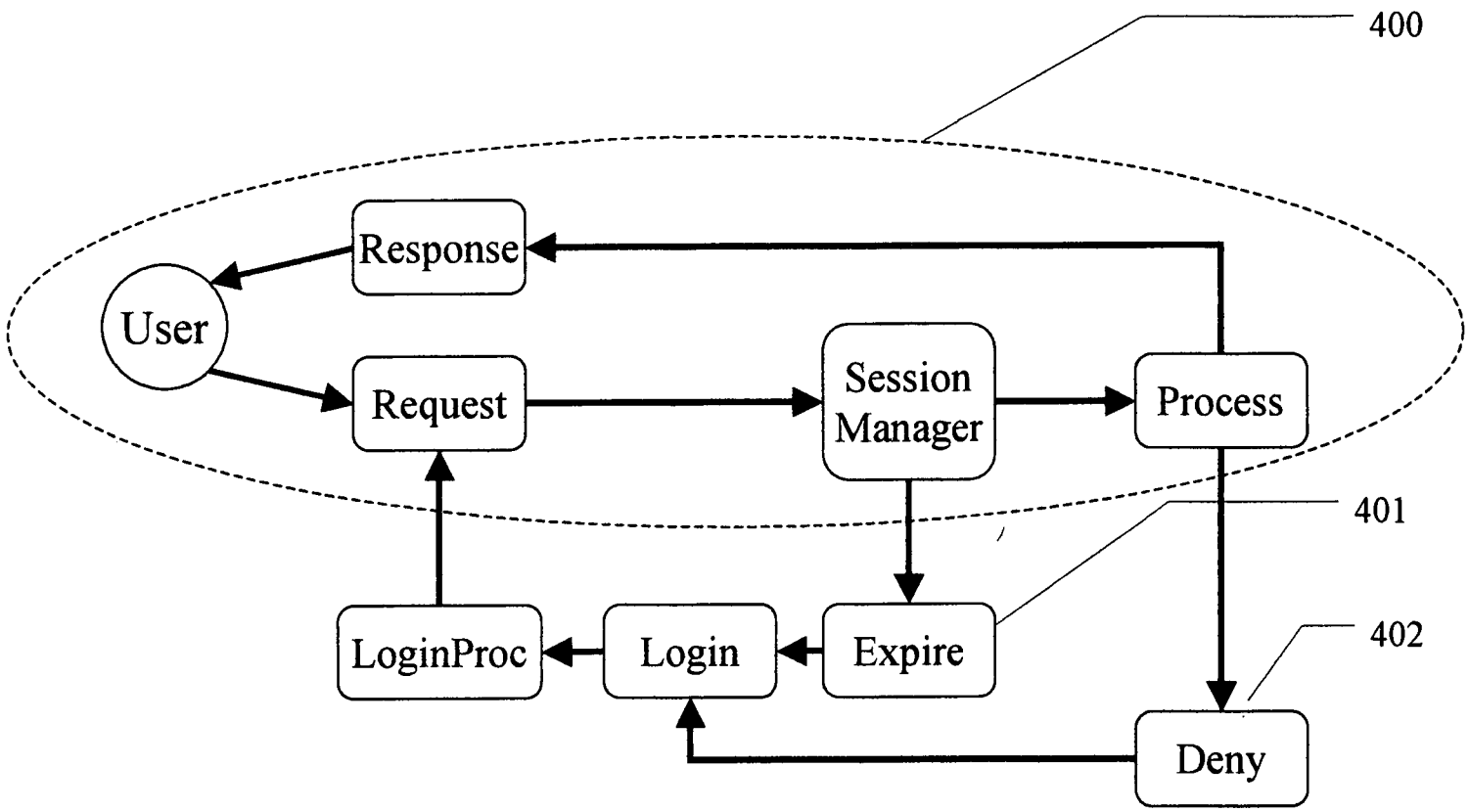
UserStatus
Figure 28



ChgPwd
Figure 29a



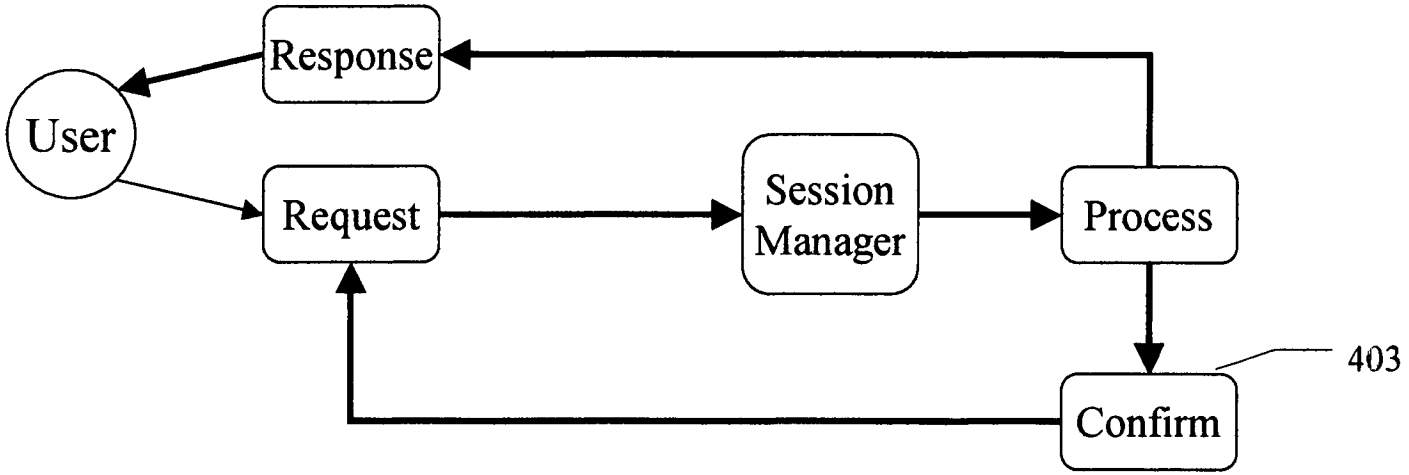
Register
Figure 29b



Scenario 1:
- session exists but expired
- request saved
- reauthorization allowed

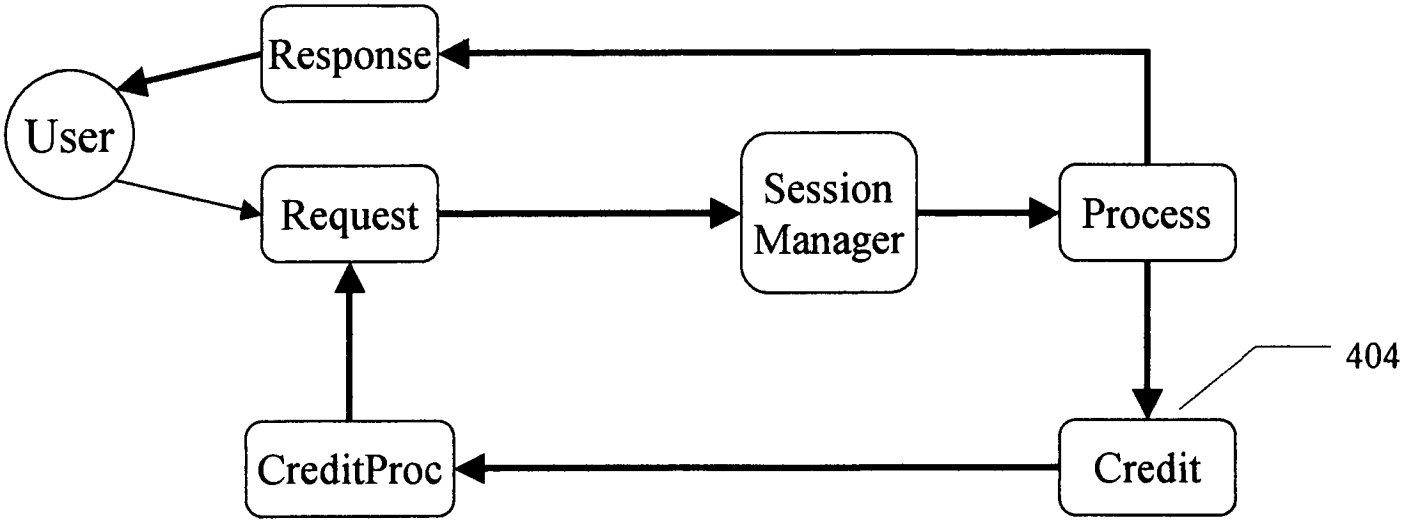
Scenario 2:
- access denied
- request saved
- reauthorization allowed

Deny/Expire Scenario
Figure 30



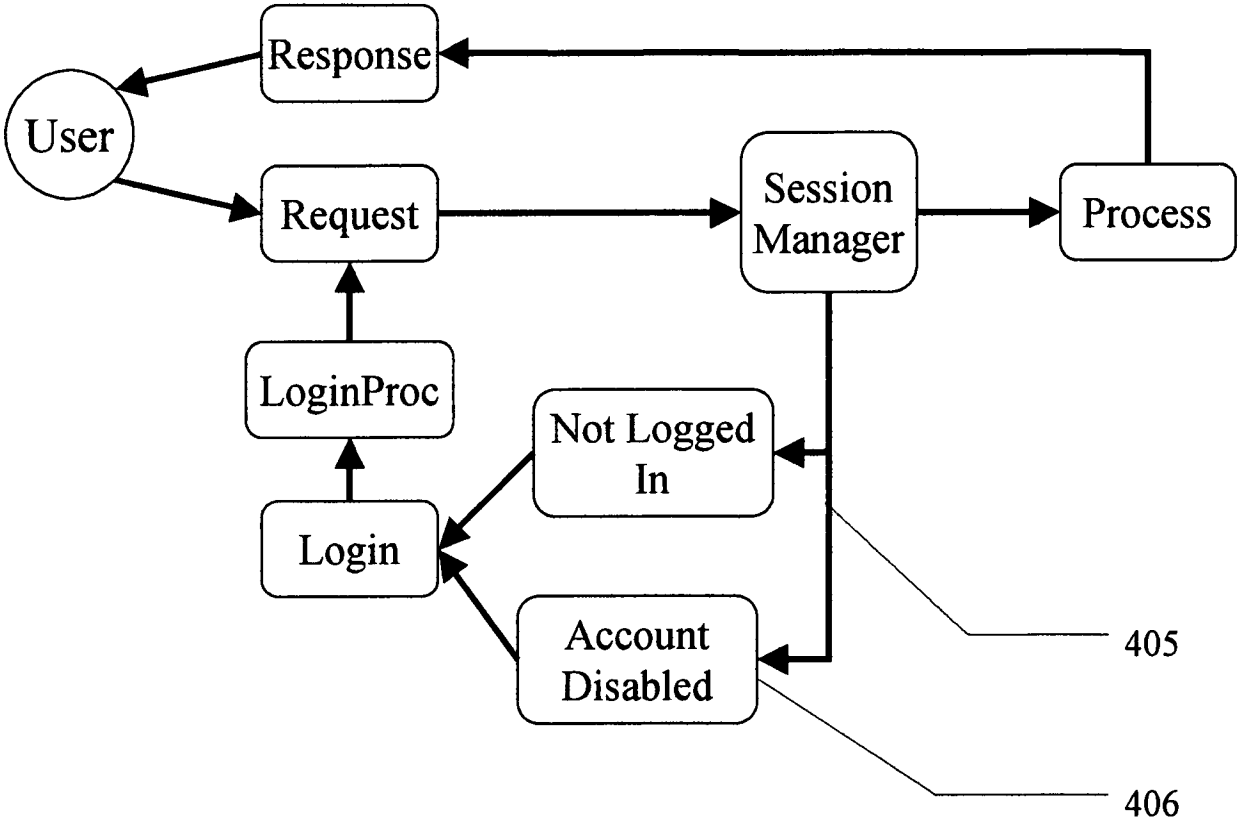
Scenario:
•confirmation active
•request not yet confirmed
•request saved
•confirmation requested

Confirm Scenario Figure 31



Scenario:
- access granted
- charge > $0
- insufficient balance/credit
- request saved
- additional funds requested

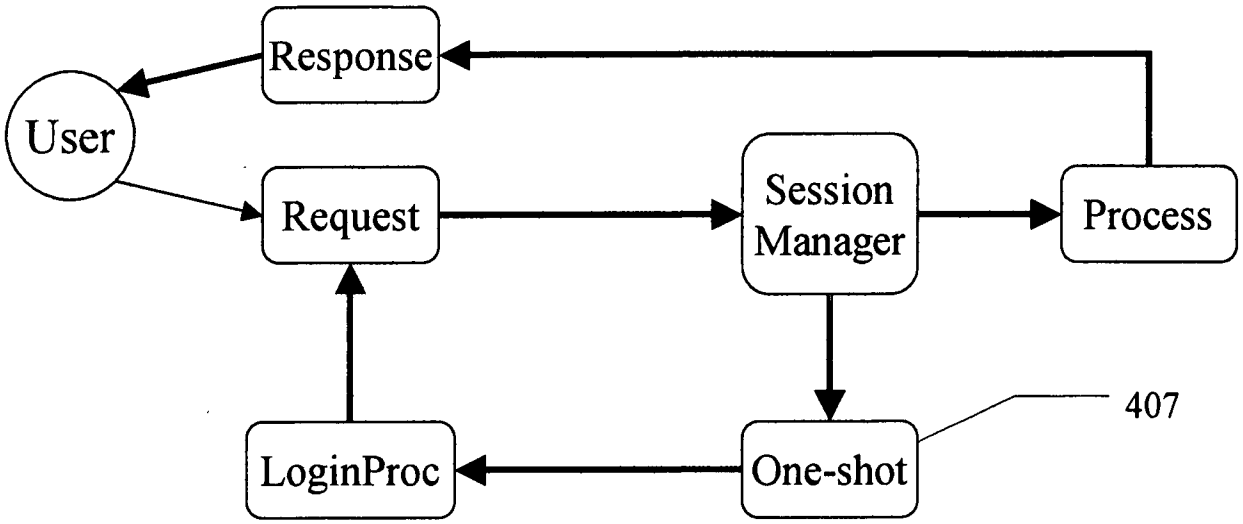
Get Credit Scenario Figure 32



Scenario 1:
•automatic anonymous identity disabled
•initial user request
•login option presented

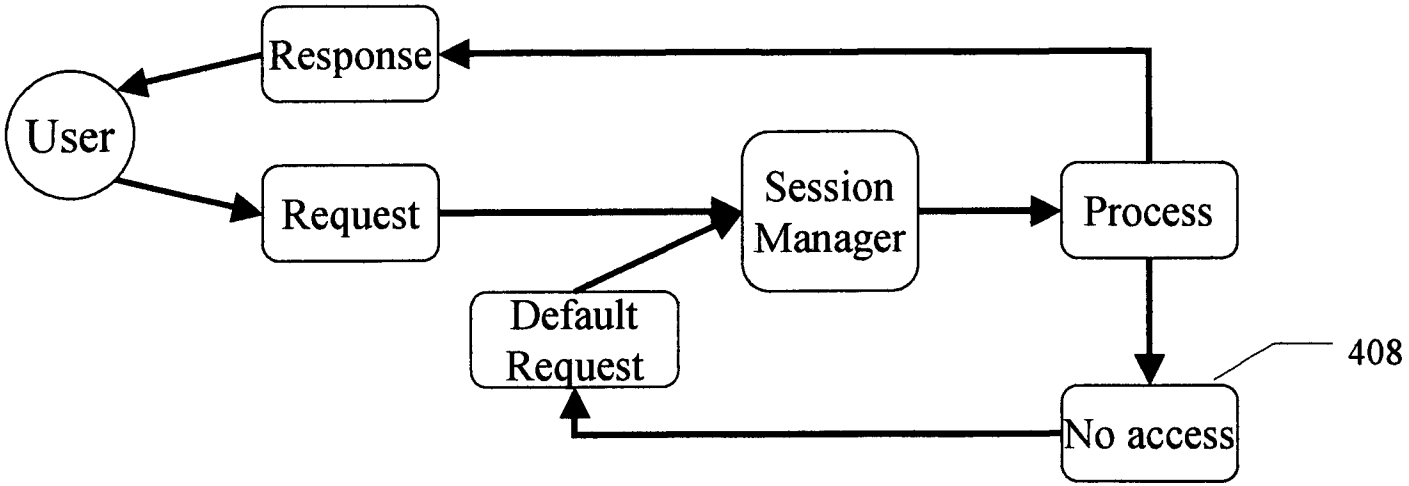
Scenario 2:
•account disabled
•re-authentication option presented

Disabled Scenario Figure 33



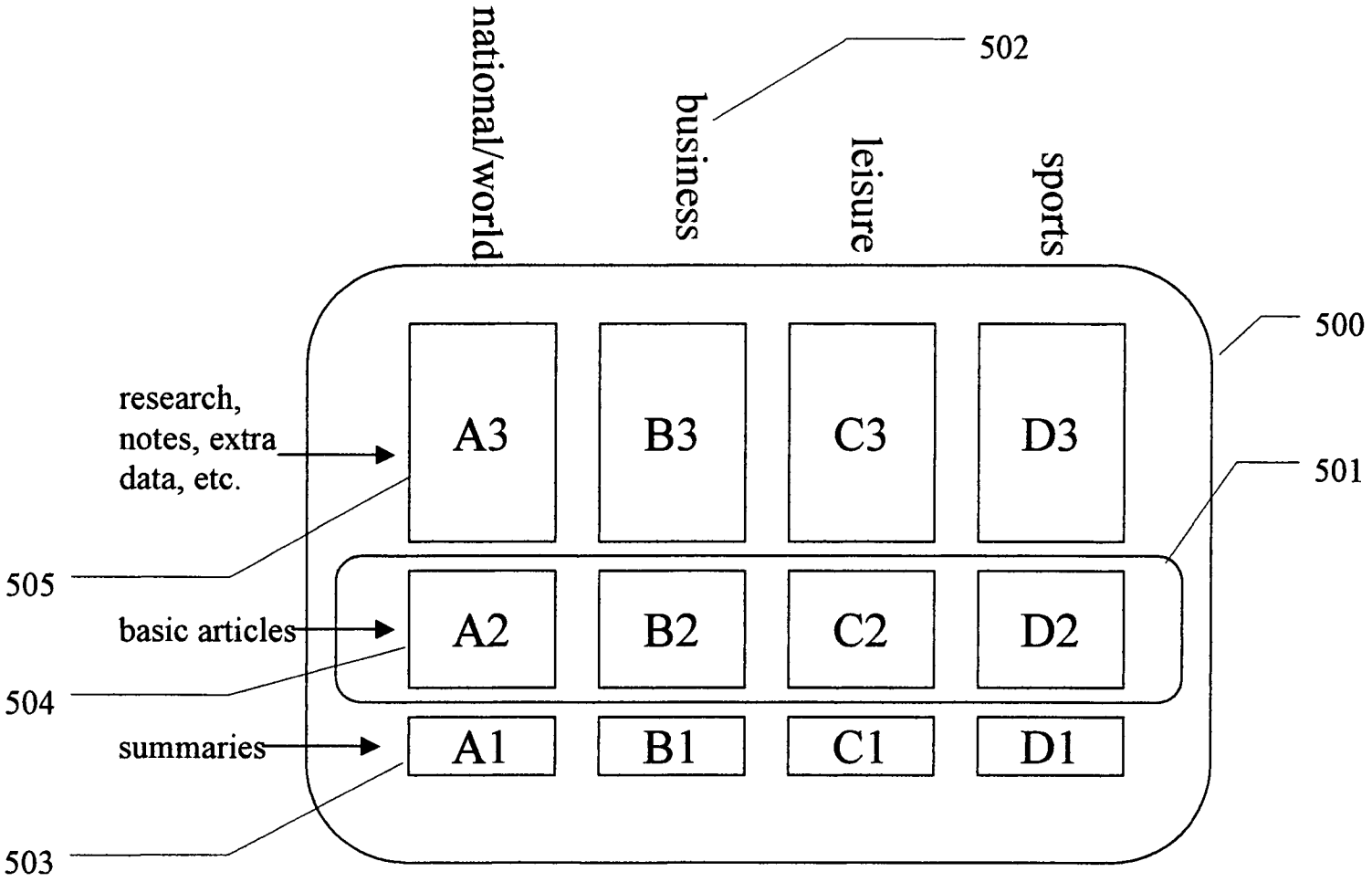
Scenario:
•request includes credentials
•request extracted, saved
•credentials processed for login

'One-Shot' Scenario
Figure 34

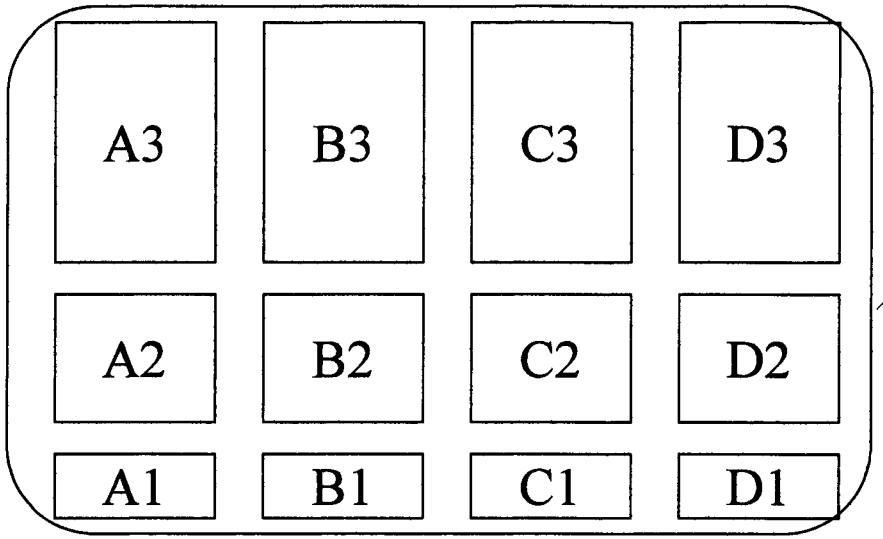


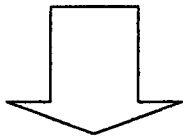
Scenario:
•access not defined, and secure mode active
•resubmit as default request

No Access Scenario Figure 35



Newspaper Content Example
Figure 36





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Focused Product	Components
•Basic newspaper	A2+B2+C2+D2
•Quick overview	A1+B1+C1+D1
•Business focus	B2+B3+A1+C1+D1
•Sports focus	D2+D3+A1+B1+C1
•Leisure focus	C2+C3+A1+B1+D1
•Hybrid overview	A2+B2+C1+D1

Focused Product Example
Figure 37

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Focused Product	Market Usage(value)
•Basic newspaper	Heavy (20)
•Quick overview	Medium (20)
•Business focus	Heavy (25)
•Sports focus	Heavy (15), Light (10)
•Leisure focus	Medium (15), Occasional (5)
•Hybrid overview	Medium (15)

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Frequency	Class	Fixed	Incr.
30/month	Heavy	100%	0%
20/month	Medium	50%	50%
10/month	Light	25%	75%
5/month	Occasional	0%	100%

Example Market Segments
Figure 38